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DENTAL CARE PROGRAMS IN CANADA

Historical Development, Current Status and Future Directions

A Report Prepared on Contract
for the
Department of National Health and Welfare, Canada

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FOREWORD

This project is part of national program to develop guidelines and conduct research studies in the area of dental health services. The overall objective of this program is to collaborate with the provinces, territories and dental health professionals to improve the quality of dental health services in Canada. For further information on this and other reports, contact the Adviser on Dental Health Standards.

This project was conducted on contract for the Health Services Directorate, Department of National Health and Welfare. The contract was administered through the Department of Supply and Services, Canada.

The overall responsibility for the project within the Department of National Health and Welfare was that of the Adviser on Dental Health Standards. The Adviser developed the concept, undertook the planning for the project, and identified appropriate researchers and consultants. Meetings were held with various federal officials to consider alternative ways of conducting the proposed project. The Adviser was involved in every stage of the project development and operation to completion.

The proposed methodology, including the survey instruments, were steered through the Statistical and Paperburden Review of Statistics Canada to ensure that the methodology was both of high calibre and yet not unduly demanding, particularly for those persons requested to complete questionnaires. Consultation with the study team, final editing, translation and preparation of the final report for publishing were all responsibilities of the Adviser. The sections pertaining to surgical-dental benefits under the medical care program in Canada and provincial dental care programs were reviewed and edited by officials within the Department of National Health and Welfare. More recent information relating to the Canada Health Act and provincial programs was also added by these officials. Dr. Jean-Paul Lussier of Montreal undertook on contract to edit the final text in French.

It is hoped that this research study will not only contribute to the knowledge of dental care programs in Canada but will act as a stimulus for further investigations. This study has illuminated the fact that for the first time in history more than fifty per cent of the Canadian population is covered by a third-party dental care program. The researchers concluded that the growth in dental care expenditures due to the introduction of prepaid dental plans, has improved the dental health of those covered by such plans.

The researchers are to be commended for the production of such a thorough and detailed report in an extremely difficult area of study. This was the first major investigation at the national level of dental care programs in Canada and many difficulties in collecting appropriate and comparable data were faced. The recommendations of the researchers to those involved in dental care programs, to develop data collection systems that will enable assessment and planning are particularly important. It is only by improvement in our record-keeping systems that we can truly evaluate the cost/effectiveness of the varying programs over time. Nevertheless, the analysis and recommendations relating to dental health care policy issues in this report will be most useful in the planning for future programs and the improvement of existing ones, even if not everyone agrees fully with the conclusions and recommendations of the researchers. This is a report to the federal government and does not represent a policy statement of the federal government.

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This Report is the result of a tremendous amount of help and cooperation received from many individuals and organizations.

First, we are indebted to a number of collaborators and consultants who in essence formed a planning committee for the project. The Adviser on Dental Health Standards, Health and Welfare Canada, Ms. Sharon B. Amer (formerly French), provided a wealth of documentary material and furnished us with many important contacts. Dr. D.W. Lewis, professor of dental public health, University of Toronto, served as a consultant on all aspects of the study and prepared the presentations on the Alberta Extended Health Benefits Dental Program (Sec. 4.2), the Newfoundland Children's Dental Program (Sec. 4.6), the Prince Edward Island Children's Dental Care Program (Sec. 4.9) and the Saskatchewan Health Dental Plan (Sec. 4.11). Dr. G.L. Stoddart, professor of economics at McMaster University, was the second principal consultant and provided valuable help in formulating the research questions, designing the survey instruments, and pressing for a more policy-oriented document. Mr. W. Tholl, a policy analyst in the Policy, Planning and Information Branch of Health and Welfare Canada, was particularly helpful in sharpening the conceptual framework for the study and clarifying the policy issues that should be addressed.

Second, during the project we received much valuable help from Mr. D. Clark, Sun Life Assurance Company of Canada, and Mr. C. Black, Canadian Life and Health Insurance Association. In addition, we greatly appreciate the cooperation we received from the many individuals in the companies which participated in the National Survey of Dental Insurance. The participating organisations are listed in Appendix V, but it was through the efforts of individuals too numerous to mention that the necessary data were put together for us. Special thanks are due to Mr. T.C. O'Connor and Mr. K. Holmes of Canada Labour Views, Toronto; Mr. W.B. Solomon and Mr. T.D. Pitts of Tillinghast, Nelson & Warren, Inc., Toronto; and, Ms. L. Brodkin-Schneider and Mr. D. Schwartzman of William M. Mercer Ltd., Montreal, who provided valuable background on private group dental plans.

We are grateful too to the persons in the federal government and in each province who supplied information on the various provincial dental programs and on the programs for social assistance recipients. Those who assisted us are listed in Appendices VI, VII and VIII.

We wish to acknowledge the contributions of Mr. D. Ferguson, who reviewed most of the text and made constructive editorial suggestions, and of Ms. K. Roth, who entered into the computer the data from the survey of dental insurance carriers.

Finally, we would like to thank Ms. H. Simard and Ms. V. Rotari for their outstanding work in preparing the manuscript for this Report.

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March, 1984

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1.0 INTRODUCTION AND BACKGROUND

1.1 Purpose

This report describes and analyzes dental care programs in Canada and makes recommendations relevant to the development of these and future dental programs. The work was undertaken for the specific purpose of enhancing the formulation of health care policy as it relates to dental health care services. The motivation for this task stemmed from several considerations. First, Canadian dental health care programs probably exhibit a greater range of distinct characteristics than those in most other developed countries. Programs range from private, fee-for-service practice in some jurisdictions to salaried dental services using dental therapists who are graduates of a community college-level program of two years duration in others. Several provinces offer universal, publicly-funded dental care for children, while another operates a universal program for the elderly. Millions of persons are covered by private dental insurance, while other millions benefit from publicly-funded, third-party programs. In several Canadian provinces denturists are permitted to deal directly with the public in the provision of full and, less commonly, partial dentures. Thus, with its highly-varied approach to dental care delivery within the boundaries of a single nation, Canada represents a true laboratory for evaluating different approaches to providing oral health services. It is crucial that this situation be documented, to permit proper comparative evaluations when these are called for.

Second, Canada experienced a remarkable growth in dental care programs during the 1970s. This expansion proceeded at a much greater rate than could have been foreseen in the 1960s. A number of expected problems accompanied the rapid growth, including vague goal-setting, hurried planning, uncertainty about probable expenditures, and inadequate record-keeping. These problems, combined with the diversity of dental care programs, have resulted in confusion about the present status of the programs. More succinctly, the extent of activity and the degree of effort inherent in them are generally unappreciated. Inasmuch as dental care program growth began to abate in the early 1980s, it seems timely to take stock of what now exists in the field.

Third, like most developed countries, Canada has undergone a period of economic difficulty in recent years. As a result, governments and industry alike began to look for areas where greater economic restraint could be exercised. Considerable pressures have been placed on health care programs because they represent relatively large expenditures and thus become possible targets for cutbacks or restraint. Dental care programs have not gone unscathed, and the outlook for them in the future appears uncertain. For this reason, it is imperative to gather sufficient data on Canadian dental care programs to ensure that future decisions regarding dental health care policy can be made on a more informed if not rational basis.

In short, the purpose of this project is to provide the historical development and current status of Canadian dental care programs as well as to suggest some considerations in setting policy directions for the future.

1.2 Objectives

The project was designed to fulfil a number of specific objectives.

The first was to outline the historical development of various significant dental care programs in Canada. This involved little more than identifying certain programs and then linking them to a chronology of dates, in order to indicate how the current array of programs came about. Chapter Two deals with this topic.

The second objective was to identify and study the programs offered wholly through the federal level of government, in order to start to assess the current status of Canadian dental care programs. Four distinct programs were enumerated and investigated according to the following criteria: (1) eligibility for the program; (2) dental services covered; (3) the types of providers involved and the settings within which they work; (4) the main administrative mechanisms of the program; (5) program utilization; and, (6) program expenditure experience. The results relevant to these wholly federal programs are presented in Chapter Three.

The third objective was to investigate the provincial and territorial dental care programs, using the criteria described above. This is the focus of Chapter Four. Collectively, the provincial and territorial dental care programs represent the third largest component of Canada's dental care system, after direct payment, fee-for-service practice and private dental insurance activities. The provincial/territorial programs are diverse, both in their goals and procedures. An unfortunate consequence is that their presentation in this report is long.

The fourth objective was to offer an insight into the extent of dental care services available under the medical care programs in the various provinces. The medical care programs are operated by the provincial governments, with the federal government contributing overall approximately 50 per cent of the costs of medically necessary physician services, and those surgical-dental services in which a hospital is required for the proper performance of the procedure. In the latter case, the requirement for hospitalization may relate to the complexity of the procedure to be performed, or the health status of the patient. Chapter Five aggregates the experience of all the provinces and presents a limited amount of data on this type of dental care.

The fifth objective was to study the provision of dental services under the Canada Assistance Plan (CAP). Through this program, necessary health services (including dental care) are provided to those in need as an item of assistance. The provision of dental services under CAP, which forms the basis of Chapter Six, has never been thoroughly investigated. The social assistance programs, like the medical care programs, are jointly-funded by the federal and provincial levels of government. Readers with a special interest in the constitutional and administrative mechanisms of federal-provincial funding of health care programs may consult a number of references which discuss this in detail.[1-5] In April 1984, the two federal acts supporting the national health insurance program (the Hospital Insurance and Diagnostic Services Act of 1957, and the Medical Care Act of 1966) were repealed, and a new act, the Canada Health Act was passed. The objectives of this new act are to consolidate the provisions of the two former acts, to clarify and strengthen the basic program criteria and conditions of payment, and to establish consultation mechanisms with respect to the administration of the act. Because the act was passed so recently, most reference texts describe the pre-Canada Health Act arrangements.

The sixth objective was to study the operation of privately-funded third-party dental payment (dental insurance) as it currently exists in Canada. This is the focus of Chapter Seven. Private dental insurance is significant in Canada because it provides more extensive coverage to more people than all government programs combined. Furthermore, it was the fastest growing dental program during the 1970s. In 1981, nearly one out of every three dollars expended on dentists' services passed through the private dental insurance sector.

The seventh objective was to investigate the findings from the study and to synthesize a series of recommendations bearing on future policy formulation in the dental care area. This is the purpose of Chapter Eight. The need for new directions in policy are evident. Several provincial dental programs have begun an unplanned decline which has disenfranchised persons, primarily children, who had been receiving the benefits of these services. As well, the growth in private dental insurance has slowed while many persons remain who could benefit from this method of financing dental care. No mechanisms currently exist which would help to solve this dilemma; for that matter, the whole question of whether to place greater emphasis on reimbursement-type programs or to promote direct service programs remains unresolved. Meanwhile, arbitrary additions and/or deletions of dental services and changes to service frequency suggest uncertainty as to optimal program content. These are but a few examples of the need for clearer policy directions.

Although the report is fairly lengthy, it still leaves certain important areas outside its frame of reference. First, because it focussed on organized programs, all dental care obtained and paid for directly by the patient was beyond the scope of this work. Second, for reasons of money and time, it was decided not to discuss the many municipal dental programs mounted throughout the country, except in some cases where little in the way of province-wide programs was offered. A third explicit omission was the dental care taking place in provinical correctional institutions. On the whole it was felt that these latter two types of dental care activity would be relatively minor, particularly in the context of the total dental care effort on a national basis.

1.3 Methodology

Four categories of service providers were surveyed. These were: the relevant units within the federal government; the dental divisions within provincial health ministries; the provincial and federal agencies responsible for the Canada Assistance Plan, and the various underwriters and/or administrators of private dental third-party payment programs. From the perspective of survey methodology, sampling was exhaustive; that is, once a complete sampling frame was established, all sampling units were entered into the survey.

In developing a proper sampling frame we were greatly aided by many persons at all levels of government, as well as by the Canadian Life and Health Insurers Association, the Blue Cross organizations, and a variety of other organizations and individuals acknowledged elsewhere.

Data were obtained in two ways. First, all elements of the sampling frame were interviewed. For this purpose two survey instruments were created. One dealt with private third-party dental payment (Appendix I), and formed the basis of the national survey of dental insurance plans. The other instrument pertained to all publicly-funded dental care programs (Appendix II). Second, in the case of the latter programs, many provide relatively detailed annual reports that contain various quantities of statistical information. These were collected whenever possible and became a rich source of data.

The raw data from the survey of private dental insurance plans were transferred to computer files. In most instances data from publicly-funded programs were already in summarized form, having been generated by the statistical units associated with the provincial or federal dental programs. This meant that such data did not require much further editing or reduction.

The analyses employed in this study were largely descriptive in nature. Statistical testing of formal hypotheses was generally not employed. This was not due to lack of opportunity. For example, regression techniques could easily have been used to test the hypothesis that per-user expenditures in public programs have not kept pace with the consumer price index. By controlling for changes in age and service mix, one could have given due recognition to the multivariate nature of the problem. Results from such an analysis might have addressed a question such as whether public programs were justified in making cutbacks because expenditures were racing ahead of expected or reasonable costs. Similarly, the almost annual changes to fee schedules employed by some provincial programs could have been used to determine the price-elasticity of supply for various dental services in that particular province.

Such analyses, in our view, are urgently needed but are premature given the extent and characteristics of data at present available. The challenge confronting us was to first of all identify currently-existing dental care programs, to describe their boundaries, to document their services, to explicate their mechanisms of operation, to investigate the size of their activity, and to determine a few of their performance characteristics. Policy analysis based on less than a full understanding of dental care programs and their operations will be necessarily incomplete.

1.4 Data Limitations

There are three types of limitations inherent in the data contained in this report. The first involves the question of accuracy. For the most part the data furnished by publicly-funded dental care treatment programs are quite accurate. This was particularly so in the case of universal programs. It was rarely necessary to formulate assumptions in order to generate otherwise missing data; exceptions are noted in the relevant sections of the report. Programs that were more prevention-oriented, with small treatment components, generally were not able to provide the same high quality data as were the treatment-oriented programs. In the private insurance programs, some concern exists over the manner in which total coverage is estimated.

The second data limitation is a lack of completeness. Some programs simply do not collect or make available data that are necessary for either descriptive or analytical purposes. For example, the absence of age breakdowns in the private third-party dental programs is striking. The difficulties in obtaining longitudinal data from the same source are also obvious. As well, it was very difficult to obtain utilization data from both private and federal dental care programs, and basic financial information was not available from some public programs.

Aggregation of data presents a third limitation. For many analytical purposes it would be preferable to have access to data that is not already aggregated over all program clients. The fact that this was unavoidable makes it difficult to determine how individuals might respond to changes in program characteristics. Over the long run, such analyses are necessary to permit the design of more efficient and effective dental programs.

In short, the data presented in this report represent a good first step and can give an assessment of the past development and present status of dental care programs in Canada. However, the data fall somewhat short of what is desirable or indeed necessary for some types of policy discussions.

2.0 THE DEVELOPMENT OF DENTAL CARE PROGRAMS IN CANADA: A BRIEF HISTORICAL PERSPECTIVE

As of January 1, 1982, approximately 13.6 million Canadians, almost 56 per cent of the population, were covered under some type of dental care program that shifted the method of paying the dentist from the direct, out-of-pocket mode to one of a variety of indirect prepayment methods. In Canada, the seed for organized dental care programs was planted in 1900 when two dentists were sent by the military service to provide dental treatment for soldiers fighting in the South African war.[6] In a reorganization brought about in 1904, the Canadian Militia Army Medical Corps called for the appointment of full-time dental officers to the military, and by 1908 the Army Dental Service held its first professional meeting, within the framework of the annual convention of the Canadian Dental Association. The number of dentists serving in the Army reached 26 in 1910, and the military has operated a dental program ever since. Following World War I, the Department of Soldier's Civil Re-establishment was formed and it quickly established a national dental service which became the predecessor of the dental program offered today through the Department of Veterans Affairs.

On the civilian side, dental prepayment began as relatively isolated programs that were part of the Saskatchewan Municipal Doctor System.[2] Although the foundations for this scheme began in 1916, dental services were only sporadically available through to 1945, when Saskatchewan launched the country's first comprehensive social assistance health services program for about 28 000 welfare recipients. Basic dental services were a part of this program. In 1946, the Swift Current Health Region No. 1 established for its 50 000 people a premium and tax-based medical services program, which was extended to include coverage of dental care services for children by the early 1950's.

2.1 The First Universal Children's Program*

In 1950, the province of Newfoundland established a program that made basic dental services available for five-year-old children, provided they lived in defined geographic areas in which there was a participating dentist in either public or private practice. Dentists were paid by salary or on a sessional basis. In 1965, program eligibility was extended to include six and seven-year-olds. At about the same time, the payment mechanism was changed to a fee-for-service system. It was not until 1970 that universality was achieved by removal of the eligibility requirement of residence in an area having participating dentists. As children now only had to meet the age criterion to be eligible for dental benefits, Newfoundland is recognized as being the first province with a universal children's dental care program. However, for many years it remained an unfortunate fact that Newfoundland suffered from a serious shortage of dentists. Hence, while a dental care program was on the books, it was still quite difficult for many children to obtain the dental services they required. Over the years, this situation has improved as the supply of dentists has increased relative to the size of population.

2.2 Early Developments in Dental Care Programs

The earliest dental care programs targeted at specific population groups were relatively isolated efforts sponsored by individual dentists or local dental societies. In 1874, a Toronto dentist, J.G. Adams, established a free dental hospital for poor children. This institution functioned until 1899. The Halifax Visiting Dispensary provided dental services from the turn of the century to 1920. In 1913, the City of Toronto established the first municipal dental clinic to provide publicly-funded dental care for poor children.[6] Since that time, a slowly-increasing number of city health departments and local health units began to make provision for limited dental care programs. Screening, referral, emergency treatment and preventive dental health education formed the bulk of program activities. When dental treatment was available under these municipal programs, they often employed a means test to determine eligibility.

Dental divisions within provincial health departments were established somewhat later, with Ontario being the first to employ a full-time dental director. This is consistent with the rather late establishment of provincial health departments, New Brunswick being the first in 1918. In the main, the provinces took relatively little action to mount formal dental programs. Rather, the emphasis was on supporting municipal and local health unit efforts, and on collaborating with the organized dental profession and voluntary agencies interested in dental health promotion. As stated earlier, Newfoundland launched a provincial dental program in 1950, which later became the first universal children's dental care program in Canada.

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* In the usual medical care jargon, universality refers to eligibility for all persons within a geo-political boundary. In the case of the Newfoundland program, this notion of universality was restricted to a specific age group. This concept also applies to the dental programs in Alberta, Nova Scotia, Prince Edward Island, Quebec and Saskatchewan.

Since the 1950s, the Department of National Health and Welfare has made considerable effort to provide dental services for Canada's treaty Indian and Inuit populations, largely through the use of fixed and mobile dental facilities staffed by salaried dentists. However, the Department has also used contract and fee-for-service mechanisms to pay for services provided by private practice dentists.

The next significant step toward increased access to dental care occurred in 1966 with the creation of the Canada Assistance Plan. Basically, the Plan was a program whereby the federal government contributed 50 per cent of the costs of the various provinces' social assistance payments. In addition to contributing to the social assistance payments to those in need, CAP also allows the federal government to contribute 50 per cent of the costs of welfare services provided to those in need or those likely to become in need. These included payment for health services not covered under the provincial hospital plans, and later under the medical care insurance programs. Both eligibility criteria and methods of administration varied widely among provinces. Nevertheless, the Canada Assistance Plan generally increased the opportunity for a particularly hard-pressed segment of the Canadian population to receive needed dental services.

2.3 Dental Coverage Under the Federal-Provincial Health Insurance Programs

Prior to the establishment of health insurance in Canada, when dental treatment necessitated the patient's admission into a hospital, a patient faced not only the expense for dental services rendered but also the cost of the hospitalization itself. By the 1950s, a proportion of the population was covered for dental treatment required in hospital by private group medical and hospital insurance plans. With the passage of the federal Hospital Insurance and Diagnostic Services Act (HIDS) in 1957, the federal government was authorized to enter into agreements with the provinces and territories, under which it would share the costs of a wide range of medically necessary hospital and diagnostic services. To be eligible for the federal subsidy of approximately 50 per cent, provincial plans had to meet the following conditions:

- all residents of the province, except those covered through other means (such as the Armed Forces), must have insured services available upon uniform terms and conditions. Today more than 99 per cent of residents of Canada are covered under the Program through the corresponding provincial plans;
- coverage must be comprehensive, providing at least an agreed minimum list of in-patient services in approved hospitals, excluding tuberculosis and mental hospitals, nursing homes and other institutions providing custodial care;
- insured persons must have reasonable accessibility to insured services unimpeded by user charges or otherwise;
- benefits must be portable from one province to another or when temporarily absent from Canada;
- necessary arrangements to ensure that adequate standards are maintained in hospitals;
- to furnish appropriate information to the Minister of National Health and Welfare for the purpose of determining provincial compliance.

All provinces agreed to provide the following insured in-patient services, as required by the Act:

- accommodation and meals at standard ward level;
- necessary nursing service;
- laboratory, radiological and other diagnostic procedures, as well as professional interpretations where necessary;
- drugs, biologicals and related preparations when administered in a hospital;
- operating room, case room and anaesthetic facilities, including equipment and supplies;
- routine surgical supplies;
- use of radiotherapy and physiotherapy facilities where available;
- services rendered by persons paid by the hospital;
- other services as specified in the provincial law.

Provinces also had the option, by agreement, of providing any of these services on an out-patient basis and over the years have increasingly done so.

A good account of the financial arrangements under the Hospital Insurance and Diagnostic Services Act and the federal government conditions is given by both LeClair[1] and Taylor[2].

Under HIDS those persons requiring hospitalization as part of their treatment were by July 1, 1958 covered for the cost of hospitalization. As well, many Canadians had private group medical insurance which covered the cost of dental services when these were carried out in a hospital. Such persons were, therefore, insured for both their hospital and their dental services when performed in hospital. This resulted in a tendency to carry out more dental care on an in-patient basis than was previously the case.

A decade after universal hospital insurance had been introduced, the federal government passed the Medical Care Act in 1966. With this legislation, Parliament gave the federal government authority to subsidize the cost of provincial medical services insurance programs to a level of approximately 50 per cent, provided the conditions of the act were met.

— Comprehensive coverage for all medically required services rendered by a medical practitioner. There could be no dollar limits or exclusions except on the grounds that the services were not medically required.

— Universal availability of coverage to all eligible residents of the province on uniform terms and conditions and covering, in addition, at least ninety-five per cent of the total eligible population. This ensured access to coverage by all residents and prevented premium discrimination on account of previous health, age, non-membership in a group or other consideration.

— Reasonable access to insured services by insured persons. The benefit coverage had to be administered in such a way that there would be no impediment or preclusion through financial charges or otherwise to an insured person receiving necessary medical care.

— Portability of benefits when beneficiaries were temporarily absent from their own province or when moving from one participating province to another.

— Administration on a non-profit basis by a public authority which was accountable to the provincial government for its financial transactions.

— To furnish appropriate information to the Minister of National Health and Welfare for the purpose of determining provincial compliance.

Surgical-dental services provided by dentists where a hospital was required for their proper performance were also included, with the agreement of the provinces, in 1968. Concern had been expressed that certain conditions that could be treated by either a dentally or medically-trained practitioner should not be excluded when provided by a dental practitioner in a hospital.

After the amendment of the Medical Care Act to insure medically required surgical-dental benefits, the insured benefit therefore included both the cost of the surgical-dental intervention and the cost of hospitalization.

With the repeal of these two acts (HIDS and MCA) in 1984, consequent on the passage of the Canada Health Act, the benefits available under both acts were incorporated as "insured health services" under the new act, with no loss or change in coverage.

In 1977, the federal-provincial cost sharing arrangements for both hospital and medical care insurance were altered.* With the passage of the federal Established Programs Financing Act, the formulae for calculating the federal government's share of province's hospital and medical care program cost were revised. Essentially, instead of the conditional cost-sharing as determined by the old formulae, the provinces have been given access to two-part conditional block funding based upon the historic costs of the Hospital Insurance and Medical Care Programs. First, the provinces have received new tax room; specifically 13.5 per cent of the personal income tax schedule and 1.0 per cent of the corporate income tax schedule with some provision for equalization to the national average for the provinces with small tax bases. Second, the provinces received a cash contribution which, from 1977-78 onward, has increased annually by a factor based on a three-year moving average of the growth rate in per capita GNP.

2.4 The First Private Dental Prepayment Plan

Until 1966, all initiatives to reduce the economic barriers to dental care were taken by individual dentists, voluntary associations, or the public sector. But in 1966, a non-government sponsored dental plan was organized in British Columbia that was a harbinger of things to come in the next decade. In that year, the Sheetmetal Workers' International Association (SWI) and the Credit Unions and Cooperatives Health Services Society (CU&C) signed an agreement for a premium-based group dental program. Under the terms of the contract, all eligible workers and their dependents were able to obtain basic dental services from the dentist of their choice and to have the bulk of the fee paid by CU&C. The program was financed by monthly premiums, the size of which was determined by whether or not the individual workers wanted coverage for legal dependents.

The SWI/CU&C agreement had a considerable impact on the subsequent development of group dental plans throughout Canada. It was not novel, in that the premium financing method had already been widely employed to fund private group medical care coverage in all parts of the country; indeed, by 1965, almost five million Canadians had at least some medical care coverage through commercial insurance companies and a further 5.6 million were covered under medical profession-sponsored or approved plans.[2] Furthermore, premium-based dental care plans were already in operation in both Europe[7] and the United States[8]. The importance of the SWI/CU&C dental plan was that it rapidly drew the attention of many other unions in Canada who saw in it an opportunity to enlarge the fringe benefit package for the worker.

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* In respect of the calculation of the federal contribution to the provinces and the manner in which the contributions are paid. However, neither of the changes affected the dental benefits under the national health insurance program.

2.5 The 1970s – A Decade of Expansion

From 1970 onward, the growth in various types of dental care programs accelerated dramatically. In the public sector, 1970 saw Newfoundland achieve universality for limited age groups with its dental plan. Elsewhere, the groundwork was laid for children's dental care programs modelled on medical care programs in the provinces of Nova Scotia and Quebec and on a direct-service model in Prince Edward Island. Preparations began in Alberta to add dental services for the over-65s and their dependents to the Alberta Extended Health Benefits Plan. The most innovative approach of all was being planned in Saskatchewan where the machinery was set in motion for the eventual implementation of a children's dental care program staffed by Saskatchewan-trained dental therapists. In October 1971, Prince Edward Island implemented a program providing dental care to children in clinics staffed by salaried teams of dentists, dental assistants, and dental hygienists. In 1974, Nova Scotia, Quebec and Saskatchewan commenced universal children's dental care programs while Alberta launched its dental plan for the elderly and their dependants. In this four-year period, the number of people covered by publicly-funded dental programs grew eight-fold, from approximately 130 000 in 1970 to just over one million in 1974.*

Equally dramatic was the expansion of dental plans in the private sector. In 1970, close to 245 000 persons were covered by private group dental plans. By 1974, the number had swelled to over 1.7 million people with this type of coverage. Private dental plans penetrated more rapidly in British Columbia and Ontario than in the other regions of Canada. The prime reason seems to have been that these two provinces were quite industrialized and home to the largest and more organized labour union movements in the country. Using their periodic wage contract negotiations as a vehicle, the unions led the drive to open up dental coverage for workers and, in many cases, their dependents. From 1974 onward, dental plans continued to expand in both public and private sectors to the extent that by 1978 nearly 6.7 million people or 28.4 per cent of the Canadian population were now eligible for dental plans.[9] As will be seen later (see Table 8.1), this continued growth was largely due to the proliferation of private sector plans.

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* It should be noted that these figures exclude publicly-funded dental care for the Canadian Forces, Royal Canadian Mounted Police, Indians, Inuit, veterans, prisoners, and social assistance recipients.

3.0 THE FEDERAL INVOLVEMENT IN DENTAL CARE PROGRAMS

3.1 Introduction

The federal government has three separate avenues by which it contributes to the provision of dental care in Canada. The first is through its contribution to the provincial and territorial insurance programs, all of which provide certain surgical-dental benefits when a hospital is required for their proper performance. In fiscal year 1982-83, this contribution amounted to approximately $7.5 million, or nearly half of the $15 million expended on surgical-dental services.

The second avenue is a cost-sharing program called the Canada Assistance Plan (CAP). Under this program, the federal government pays approximately half the cost of the social assistance programs operated by the provinces and territories. These programs provide general assistance to persons who fall below an income test criterion. One of the benefits available under social assistance in all provinces is basic dental care. In fiscal year 1981-82, the federal contribution to dental care under social assistance amounted to approximately $28 million.

The federal government's third involvement in dental care is through the dental programs it operates wholly on its own. There are four distinct activities:

(1) the Canadian Forces Dental Services;
(2) the Correctional Service of Canada Dental Program;
(3) dental services provided through the Department of Veterans Affairs on behalf of veterans, the Royal Canadian Mounted Police, and other government departments; and
(4) dental services for Indians, Inuit and other persons living in isolated northern communities provided through the Medical Services Branch of the Department of National Health and Welfare.

In fiscal year 1982-83, these four federal dental programs operated on budgets totalling an estimated $60 million.

In this chapter we describe the four dental programs that are the responsibility of the federal government. Although surgical-dental benefits under the medical care programs and basic dental services under social assistance programs receive significant financial contributions from the federal government, they are provincially operated and administered and are described in other sections of this report. The expenditures for surgical-dental procedures are detailed in Chapter Five and dental care for social assistance recipients in Chapter Six.

The data for this chapter were collected in two ways. First, officials connected with all four programs were interviewed. Invariably, these people were extremely helpful and all were able to draw on their intimate knowledge of their respective programs to provide important and detailed information. Often they were able to consult records not accessible to us and, on occasion, they were able to provide report summaries of various aspects of their dental activities. Second, in the case of the Canadian Forces Dental Services and Medical Services Branch, periodic reports are available on request. These proved very helpful in collecting certain statistical information.

3.2 The Canadian Forces Dental Services

Since 1900, when the Canadian Forces sent two dentists to the South African war, dental services have had a place in the health programs of the Canadian military. Over the years the dental programs have grown, particularly during and after the Second World War. As of March 31, 1984, the total dental personnel establishment in the Canadian Forces Dental Services (formerly the Royal Canadian Dental Corps) was 525 military and 55 civilians. The Canadian Forces dental program, therefore, is one of the significant public dental programs in the country.

3.2.1 Eligibility

As of March 31, 1983, the strength of the Canadian Forces was 82 905 regular serving members, all of whom were eligible for the dental program. Of these serving members, 16 013 were officers and 66 892 constituted other ranks. An age distribution of the armed forces population eligible for dental care is given in Table 3.1. Of the over 82 000 eligible individuals, approximately 17 000 are recruits and trainees, while in excess of 55 per cent are 29 years of age or younger and only eight per cent are female. As a rule, the dependents of serving members are not eligible for the Canadian Forces dental program. Exceptions may arise in the case of families serving in certain locations where civilian dental services are not available. Nevertheless, these exceptions have little impact on overall program use.

3.2.2 Dental Services Covered

There are three levels of dental care: emergency care, comprehensive care and elective care. Emergency care is self-explanatory. Comprehensive care includes a full range of dental services with the exception of procedures beyond those required to restore adequate function and esthetics. Elective procedures are those required to raise individuals to a level of optimal dental fitness. Such services might include orthodontics or advanced crown and bridge work and are made available on a case-by-case basis. Generally, an individual seeking this type of care would have to meet a number of criteria including: a certain length of military service; a high level of oral health motivation and; an acceptable level of oral hygiene. In 1983, the individual's periodontal condition was added to these criteria for patient selection. Summing together, the dental services provided under preventive care, comprehensive care and elective care give the Canadian Forces Dental Services the opportunity to provide a complete range of dental services to Canadian Forces personnel.

Table 3.1
Canadian Forces Dental Services
Percentage Distribution of Eligible Personnel by Age,
1982-83

Age Group	Per cent Distribution
16–20	9.1
21–24	28.7
25–29	18.6
30–34	12.6
35–39	12.8
40–44	9.9
45–49	6.2
50+	2.1
Total	100.0

3.2.3 Providers and Service Settings

The Canadian Forces dental program is offered through 54 permanent dental clinics and 34 part-time clinics. The permanent clinics are located at bases in Canada, Europe, Cyprus, and aboard the larger ships. These clinics are fully equipped with modern dental equipment using supplies obtained through the computerized Canadian Forces Supply System. Part-time clinics are fully equipped but are not staffed on a full-time basis. They are mostly located at small radar bases in isolated or semi-isolated areas. The Canadian Forces Dental Service also has a field capability to support ground troops in action. Further, there are 26 dental laboratories which provide full service, including porcelain fused to metal, located in the larger permanent clinics.

The Canadian Forces Dental Services (CFDS) has 162 dentists on staff, of which 135 are clinically employed. The remainder include the Director General and five staff officers at National Defence Headquarters (NDHQ), the Commandant and five instructors at the CFDS School in Canadian Forces Base, Camp Borden, seven Dental Unit Commanding Officers, and up to eight dental officers on graduate training leading to specialist qualification. There are also openings for 70 dental hygienists, 18 of whom are trained in expanded functions. Only 44 dental hygienist positions were filled in 1982-83. As well, there are openings for 210 dental assistants, 72 laboratory technicians and 19 equipment technicians. In 1982-83 only 68 laboratory technicians and 15 equipment technicians were actually employed. Finally, the establishment includes ten non-dentist administrative officers, who are employed at NDHQ, Dental Unit HQs and the CFDS School.

Training is an integral part of the CFDS program. It is essential to providing a high standard of care and an adequate source of dental personnel. The CFDS School at Camp Borden, the main training resource, conducts educational programs for most dental health personnel other than dentists and offers short post-graduate courses for dental officers. Dental officers themselves are, of course, all graduates of civilian university programs. Most are subsidized through the Dental Officer Training Plan. Although this is the main source of dental officers, a small number are recruited directly from civilian practice. Similarly, although the majority of dental hygienists and laboratory technicians receive their educational preparation at the CFDS School, some graduates of civilian accredited programs are recruited directly into the military. Graduate training to specialist qualification for dental officers is obtained from the United States Army and Canadian university post-graduate programs.

3.2.4 Administration

The Canadian Forces Dental Services functions exactly like other units in the Canadian military and has the normal type of command structure. It is headed by the Director General of Dental Services who holds the rank of Brigadier-General. The Director General and staff are located at National Defence Headquarters in Ottawa. The service is organized on a regional basis. Each regional dental unit is directed by a commanding officer who has the overall responsibility for providing dental services in the region.

The Canadian Forces dental program is funded entirely out of the National Defence budget. There are no user charges employed.

3.2.5 Utilization

CFDS records show that 79 218 members of the armed forces received care during 1982-83, which is an annual utilization rate of 95.6 per cent. These users generated 302 316 patient visits for an average of 3.8 per patient. On the other hand, a recently completed CFDS Dental Condition Study showed that the average service member received only 4.7 treatment appointments during the previous two years. For clarification, it should be noted that patient-visits include all types of visits such as examinations, whereas treatment-appointments refer to those visits or appointments during which actual treatment was rendered.

With respect to the type of services used, these data are shown in Table 3.2. While not all possible services are categorized in this table, the list is reasonably complete and shows that the average patient received 6.8 of the services itemized. The table furthermore shows that diagnostic and preventive services make up a large proportion of the total services provided. This is in keeping with the preventive orientation of the Canadian Forces dental program. Relative to experience in previous years, the proportion of services devoted to removable dentures is lower, while the allocation of effort to fixed prosthodontics, that is to say crown and bridge dentistry, is higher. This appears to reflect improving dental health among the members of the Canadian Forces.

Table 3.2
Canadian Forces Dental Services
Mean Number of Selected Dental Services Per User
by Service Category, 1982-83[a,b]

Type of Service	Mean Number Per User	Per cent Distribution
Examination	1.49	21.8 per cent
X-rays	2.15	31.4
Prophylaxis	0.73	10.7
Fluoride[c]	0.74	10.8
Amalgam fillings[d]	1.30	19.0
Gold crowns[e]	0.06	0.9
Periodontics	0.10	1.5
Endodontics[f]	0.06	0.9
Complete dentures	0.02	0.3
Partial dentures	0.03	0.4
Extractions	0.16	2.3
Total	6.84	100.0

a. Based on an estimated 79 021 users.
b. Does not include all services provided.
c. In CFDS reports, this category is identified as topical fluoride or scaling.
d. Number of amalgam restorations estimated by assuming 1.8 surfaces per average filling.
e. Includes bridge abutments.
f. Mean number of canals obturated.

3.2.6 Expenditures

A limited amount of expenditure data is displayed in Table 3.3. For 1982-83, the total expenditure for the Canadian Forces dental services program was budgeted at $27.9 million. This figure includes equipment, supplies and salaries, as well as other costs such as training, so that it is not possible to capture the actual cost of dental services alone. The table shows that the program cost was approximately $340 per serving member in the Canadian Forces or $352 per patient. The Program cost came to approximately $92 per patient appointment.

Table 3.3
Canadian Forces Dental Services
Expenditures for Dental Program Operation
1982-83

Type of Expenditure	Dollars
Total	27 900 000
Per Serving Member	340
Per User	352
Per Appointment	92

3.3 The Correctional Service of Canada Dental Program

According to federal government statistics, about 24 000 persons are imprisoned in Canada at any time, for a rate of 116 per 100 000 Canadians. Just under half, or 11 000 prisoners are incarcerated in federal correctional institutions. The total budget of the Correctional Service of Canada was $500.3 million for fiscal year 1981-82. Of this amount, $31.6 million or 6.3 per cent was spent on global health care services. Dental care is part of the health care program. The objectives of the dental care policy are to promote oral hygiene, to prevent deterioration of the dentition, and to provide needed emergency care.

3.3.1 Eligibility

All inmates of federal correctional institutions are eligible for dental care. Indeed, all inmates receive a dental examination on admission. Thereafter, dental treatment is provided on the basis of demand by the inmate as well as the judgment of the attending dentist.

3.3.2 Dental Services Covered

In theory, inmates are eligible for a full range of dental services. No treatment exclusions are listed as part of the Correctional Service's dental policy. However, priority is given to emergency dental care. This means that relief of pain, the removal of acute infection, and the treatment of hemorrhage and other oral conditions affecting immediate safety or comfort are attended to first. The second order of priority calls for those services which restore the teeth to normal function and an acceptable esthetic standard. To achieve this, the accepted restorative materials are to be employed. However, if in the clinical judgment of the dentist restorations using gold or other precious metals are required, then the dentist may request such treatment on behalf of the patient. This procedure would generally apply to gold inlays and crowns.

Periodontal treatment services may be provided, including subgingival curettage, the relief of infection, and the treatment of other soft tissue abnormalities. The Correctional Service's dental policy states that the inmate's motivation and responsibility in assuming good oral hygiene shall be a factor in considering whether periodontal treatment is to be undertaken. Inmates are also eligible for root canal treatment of anterior and premolar teeth, when this will prevent either the removal of the first tooth in a quadrant or the necessity of providing a prosthetic appliance. Except for the removal of asymptomatic, impacted or unerrupted third molar teeth, most forms of minor or major oral surgery would be permitted if it were needed in the opinion of the treating dentist. Any preventive procedures prescribed or provided by the dentist would also be considered as allowable procedures.

Since there are relatively few exclusions with respect to specific services, the Correctional Service has found it prudent to exercise judgment in cases where unusually large dental expenditures may be incurred on behalf of an inmate. This has become necessary because the dental budget is part of the health care services budget, which is allocated prospectively to any specific institution. Therefore, it is the responsibility of the institution's administrator to exercise the necessary judgment to ensure that the overall health care budget is properly spent and will meet the requirements for the whole of the fiscal year.

3.3.3 Providers and Service Settings

Ninety-five per cent of the dental care is provided in dental clinics located within the correctional institutions. Referrals to dental specialists outside the prison are permitted and comprise the balance of the services provided. This implies that most prisons have a dental clinic on site, and indeed, the Correctional Service of Canada supports approximately 30 dental clinics.

Just four full-time dentists are employed by the Correctional Service of Canada. Two of these are located in Quebec, one in Ontario, and one in British Columbia. Since this is an inadequate number of dentists to meet the dental needs of the inmates in Canadian prisons, the Correctional Service relies on personal service contracts in order to provide required dental care. Although it is not known how many dentists serve under personal service contracts, in fiscal year 1982-83 nearly 78 per cent of the dental care salary budget was spent in this way. One other category of dental personnel currently employed by the Correctional Service is the dental laboratory technician. The Correctional Service operates three dental laboratories that employ a total of nine technicians, mainly in the fabrication of dentures.

3.3.4 Administration

As is true for health care services generally, the administration of the dental program is highly decentralized. The ultimate administrative responsibility falls on the individual prison wardens who may or may not delegate this task to assistant wardens. When a special request for an inmate's dental treatment is made, this is generally handled by the regional manager, health care services, who in turn may seek guidance from the Director General, Medical Services. However, it is not common for the dental program to involve the upper levels of the administrative structure.

The main expenditures for the dental program involve supplies, equipment and salary. Supplies are generally ordered by the assistant warden, using local purchase orders or through the Department of Supply and Services. Equipment requests are channeled through the Director General, Medical Services. The dental program is financed from general revenues.

3.3.5 Utilization

The dental care utilization data for inmates in the correctional institutions are rather sparse. Indeed, it is not possible to develop a true utilization rate. For the year 1982-83, approximately 9 964 inmates generated a total of 30 494 dental visits for an average of 3.1 visits per inmate. Those data are broken down by region in Table 3.4. It should be noted that although the average visits per inmate appear to be relatively stable, in actual fact the variation among individual institutions is considerable. It should also be noted that the number of visits per actual user would be higher than the visits per inmate as given in the table.

Table 3.4
The Correctional Service of Canada
Dental Visits by Region, 1982-83

Region	No. of Institutions	Average No. of Inmates	Totals Visits[a]	Average Visits per Inmate[b,c]
Atlantic	2	979	3 016	3.1
Quebec	8	3 125	9 504	3.0
Ontario	8	2 586	7 610	2.9
Prairies	6	1 986	6 629	3.3
Pacific	6	1 288	3 735	2.9
Total	30	9 964	30 494	3.1

[a] Every new inmate receives a dental examination which counts as one visit.

[b] Although these estimates are stable, when aggregated by region, the variation among institutions is considerable. In one Quebec institution, there was an average of 13.65 visits per inmate per year while in one B.C. institution the equivalent figure was 1.16.

[c] These figures would be higher if the number of actual users constituted the denominator.

3.3.6 Expenditures

The total expenditures for dental services provided in federal correctional institutions is difficult to calculate. Table 3.5 represents an effort to provide a rough approximation. It can be seen from the data that the dental program cost at least $1.2 million in fiscal year 1982-83, and perhaps somewhat more if certain non-reported costs were taken into account. Interestingly, the total expenditure represents an outlay of $120 per inmate per year for dental care. Obviously, this figure would be higher if it were calculated for just those inmates who actually made use of the dental program. Overall, the dental care expenditures amounted to 3.5 per cent of the estimated health care expenditures for correctional institutions in fiscal year 1982-83.

The reader should note that the correctional institution population is in a continual state of flux. Therefore, it may be slightly hazardous to calculate the per inmate figures as indicated in footnote c. to the table. The figure of $120 is based on an average prison population. However, it is clear that the numbers of individuals actually spending time in the institutions is greater. When it is recognized that every inmate entering a prison gets a dental examination and that such an examination counts for one visit, then it is clear that the average costs are going to be biased upwards if the average number of inmates is going to be used in the denominator.

Table 3.5
The Correctional Service of Canada
Expenditures for Dental Services, 1982-83[a]

Expense Category	Number	Expenditures
Dentists (salaried)	4	$189 000
Dentists (contract)	?	667 000
Dental Hygienist (contract)	1	5 000
Dental Technicians	9	225 000
Supplies and Instruments	—	109 000[b]
Total	—	1 195 000[c,d]

a. Does not include depreciation for building or equipment, nor overhead for heating and utilities, etc.
b. Estimated at 10 per cent of salary costs.
c. Represents approximately $120 per inmate or $39 per visit by an inmate.
d. Represents 3.6 per cent of estimated health care expenditures for 1982-83.

3.4 Dental Services on Behalf of Veterans, The Royal Canadian Mounted Police, and Other Federal Government Departments

Dental services on behalf of veterans of the Canadian Forces, members of the Royal Canadian Mounted Police, as well as persons designated by other federal government departments, are provided under a dental program offered through the Department of Veterans Affairs (DVA) also known as Veterans Affairs Canada. The DVA was created in 1944, when the then existing Department of Pensions and National Health was divided into the Department of National Health and Welfare and the Department of Veterans Affairs. With its creation, the DVA inherited a system of dental clinics that had been established under the Department of Soldiers' Civil Re-establishment to provide dental services for ex-servicemen after World War I. In population centres not sufficiently large to warrant these government clinics, the Department made arrangements for the rendering of dental services by private practitioners.

In 1939, all personnel of the Royal Canadian Mounted Police became eligible for a government dental care program. Largely for administrative convenience, it was decided to include the program under the one already offered to retired soldiers. Thus when the DVA was established in 1944 it inherited the responsibility for providing dental care to veterans and the RCMP, as well as for managing the existing dental clinics and administering the payment of private practice dentists as the occasion demanded.

With the cessation of hostilities in 1945 and the return of large numbers of servicemen, the DVA's health care responsibilities increased dramatically. The early postwar period saw a considerable expansion in the number of dental clinics and a large increase in the number of dental services rendered by private practitioners but reimbursed by the DVA. By 1982-1983, the structure of the DVA dental program remained essentially unchanged although the range of services it offered had expanded greatly.

After World War II, the federal government designated the DVA responsible for the dental care of individuals and groups specifically identified by various federal government departments, but this has never been a major part of the Veterans Affairs dental program.

In essence then, the Veterans Affairs dental program may be seen as offering dental services to three separate client groups.

3.4.1 Eligibility

Eligibility for the Department of Veterans Affairs dental services seems more complicated than it in fact is. While it is impossible to describe the eligibility criteria in complete detail, we will attempt to sketch the broad picture for the three different client groups. First, with respect to veterans, there are two basic groups of eligible patients. Group A consists of those individuals who receive a war veterans allowance. These are veterans who are under the age of 65 years and who have no pension or other significant source of income. Eligibility may continue beyond 65 years of age depending on the veteran's income. Therefore, these individuals become eligible on the basis of what is essentially a means test. No dependents of these individuals are eligible for DVA dental services. The Group B veterans are those who have suffered a wartime disability that may have some relation to their oral health status, and who receive disability pensions. Eligible disabilities include: facial trauma with loss of teeth and/or supporting structure; the loss of an arm or hand or a hand disability that would impede the carrying out of normal oral hygiene practices; general physical disabilities that may have a relationship to dental health such as gastro-intestinal tract disorders, pulmonary tuberculosis, epilepsy, certain types of heart disease, and avitaminosis if suffered during the course of hostilities. It is estimated that there are approximately 50 000 veterans who receive the war veterans allowance (Group A), and another 8 000 veterans who receive the disability pension (Group B). Hence, in 1982-83, the veterans eligible for dental care constituted a client group of 58 000 persons.

The second major client group of the DVA dental program is the Royal Canadian Mounted Police. All RCMP officers and special constables but not their dependents, are eligible for dental care. For 1982-83, it has been estimated that there were 15 600 RCMP officers in Canada.

The third client group comprises those individuals designated by other government departments. As has already been indicated, this traditionally has been a very small user group. Persons eligible for care within this category include: foreign students and their dependents who are in Canada under the support of the Canadian International Development Agency (CIDA); all workers under the Canadian University Students Overseas (CUSO) programs; as well as other individuals on special request of other government departments. The open-ended nature of these criteria makes it impossible to estimate the size of this third group.

3.4.2 Dental Services Covered

Whether carried out in DVA clinics or in private dental offices, persons eligible for dental care under the DVA program may receive one of two categories of treatment. Those eligible for basic treatment may receive a dental examination, X-rays, fillings, extractions, full and partial removable dentures, prophylaxis, endodontics, and periodontal treatment, including surgery of soft tissues. Where a full crown is necessary in order to support a partial denture, this may also be included. The comprehensive treatment category includes all items covered under basic treatment, to which may be added crown and bridge work, occlusal corrections, orthodontic care, and overdentures. It should be recognized that the services covered under the above two categories have evolved over a period of time, and that the mix of allowable procedures changes as acceptable practice standards change. In general, beyond the broad guidelines applied in administering the treatment authorization process, the policy of the DVA precludes interference with professional standards applied in dental practice.

Eligibility for basic treatment applies to veterans with a disability pension whose handicap derives from either a general physical disability or avitaminosis; War Veterans Allowance recipients; RCMP officers with less than five years of service, and CIDA students. CUSO students are eligible for four visits or dental care expenditures up to a fixed dollar amount. Designated individuals from other government departments may receive treatment approved by their respective departments. Eligibility for comprehensive dental treatment applies to veterans pensioned for facial trauma with loss of teeth, or for loss of hand or equivalent disabilities, and to RCMP officers with five or more years of service.

3.4.3 Providers and Service Settings

There are two modalities for the provision of dental services. The first is the system of dental clinics that are staffed and operated by Veterans Affairs. There are sixteen such clinics nationally, most of them located in the major population centres throughout the country. These clinics function with a complement of salaried personnel, including 32 dentists, four dental hygienists, 32 dental assistants, and 11 dental technicians. The DVA clinics provide about 25 per cent of all services furnished under the Department's dental program.

The second modality is called the Dentist of Choice (DOC) option. Any individual eligible for dental care under the DVA program may choose to have that care provided at a DVA clinic or by a private dentist, and if the individual chooses the latter, the practitioner is paid on a fee-for-service basis. Dentists who participate under this program must adhere to the same basic and comprehensive treatment criteria as are applied in the DVA clinics. Furthermore, if the patient will be receiving basic dental treatment, this may be provided without pre-authorization. On the other hand, if the patient will be receiving comprehensive care or a second issue of dentures, then a pre-treatment estimate is required which is submitted to Veterans Affairs for authorization. Approximately 75 per cent of dental care under the DVA program is via the Dentist of Choice option.

3.4.4 Administration

The DVA dental program is administered in a fairly decentralized manner. Veterans Affairs divides Canada into five administrative regions: Atlantic Provinces, Ontario, Pacific Coast, Prairies, and Quebec. For each region there is a Regional Dental Adviser. In turn, these regions are divided into 32 districts, 16 of which contain DVA dental clinics. At each clinic, one dentist is designated as the chief of dental service. One of these chiefs also serves as a national coordinator of the dental program. The sixteen chiefs of dental service organize their own clinics, authorize treatment plans under the DOC option, and handle the claims it generates. The Regional Dental Advisers ensure that all clinics in the region operate in a standardized way.

The administrative load in a DVA clinic is considerable. Each chief of dental services is concerned with matters of personnel management, and with determining the eligibility status of various potential clients for dental service, carrying out treatment plan authorizations, approving claim forms, and maintaining an adequate level of equipment and supplies. In addition, the chief must prepare budgets and maintain a certain level of statistical data on the operation of the program.

Recipients of treatment from DVA clinics pay no user fees. In the case of patients from other government departments, Veterans Affairs recovers the cost of care provided from the department concerned. In 1982-83, DVA billed other government departments on the basis of $51 per appointment. In the case of the Royal Canadian Mounted Police, DVA bills the Solicitor General's office for $51 per patient appointment in addition to any commercial laboratory expense, and a $14 administration fee for each claim processed.

Reimbursement under the Dentist of Choice option follows some general policies set down by Veterans Affairs. Thus, in most instances Veterans Affairs reimburses private dentists at the rate of 90 per cent of current provincial fee schedules. However, there are some exceptions:

(1) All services provided for RCMP personnel are reimbursed at 100 per cent of the current provincial fee schedule.
(2) In British Columbia, the Department pays 100 per cent of the provincial fee schedule as a result of special arrangements made with the dental association.
(3) In Manitoba, dentists are paid 100 per cent of the Manitoba Social Allowance Health Services Program fee schedule negotiated by the Provincial Department of Community Services and Corrections.

3.4.5 Utilization

Over the years the Veterans Affairs dental program has developed a detailed record-keeping system which collects most types of data necessary to monitor its activities. Unfortunately, until recently the computerization procedures used generated less than ideal summary statistics. While this problem is now being rectified, it means that for fiscal year 1982-83 certain important summary statistics still need to be estimated. In spite of this, the estimates derived in this and the following section, would appear to be fairly accurate.

Table 3.6 reports the dental program utilization by point of service and patient group for fiscal year 1982-83. Overall, the table indicates that the DVA programs served approximately 35 000 persons in 1982-83. Of this clientele,

Table 3.6
Veterans Affairs Canada
Dental Program by Point of Service and Patient Group, 1982-83

Patient Group	Estimated Number Eligible	DVA Clinics		DOC	Estimated No. of Users	Utilization %
		No. of Cases	No. of Visits	No. of Claims		
Veterans	58 000[a]	9 427	26 182	14 747	21 716[b]	37.4
Other Gov't Departments	Unknown	265	535	288	471[c]	?
RCMP	15 600[d]	2 216	4 259	14 851	12 824[e]	82.2
Total	—	11 908	30 976	29 886	35 011	—

a. Estimate provided by DVA officials.

b. This estimate was obtained by assuming that in the veterans category, DOC users generated 1.2 claims per year. Hence, the number of users is given by (9 427 + (14 747 / 1.2)), which results in a utilization rate of 37.4 per cent for 1982-83. This compares with a DVA estimate of 34 per cent for the previous year.

c. Derived as in b. above except for the assumption that each DOC user generated 1.4 claims.

d. Estimate provided by RCMP officials in Montreal.

e. Derived as in c. above. The resultant 1982-83 utilization rate of 82.2 per cent appears rather high but is at least more conservative than a DVA estimate of 90 per cent for 1981-82.

just under two-thirds were veterans and approximately one-third consisted of serving members in the RCMP. The users from other government departments represented a miniscule load on the program. In terms of utilization rates, it can be seen that of the eligible veterans, just over 37 per cent made some use of the dental program, compared to 82 per cent of RCMP officers. There is clearly a major difference in utilization rates. However, it should be remembered that the two client groups are considerably different in their dental needs as well as in their acknowledged propensity to seek dental services. Specifically, the veterans group is, on average, considerably older than the RCMP cohort. It is well known that dental services utilization by the elderly is well below that of persons in their middle adult years. Furthermore, a considerable proportion of the veterans would be wearing removable dentures. Whether justified or not, denture wearers do not make as frequent contact with the dentist as do dentate adults.

It is also clear from Table 3.6 that the different client groups exhibit a different pattern of use with respect to the DVA clinics and the Dentist of Choice components of the dental program. Veterans are considerably more likely to obtain their dental care in a DVA clinic than are RCMP officers. While over 40 per cent of veterans sought treatment from DVA clinics, fewer than 20 per cent of the RCMP personnel obtained their care at the clinic sites. For persons from other government departments, the point of service was equally split between the DVA clinics and the DOC modality. Overall, it is fairly evident that the DOC part of the dental program is its largest component.

With respect to the provision of specific types of dental services, Table 3.7 gives such breakdowns for the three categories of user groups. Overall, for fiscal year 1982-83 the DVA dental program generated approximately 170 000 dental services on behalf of its users. This number does not include a separate count for dental examinations. Among the more obvious findings are that removable dentures are provided primarily to the veterans' group while crowns and bridges are more likely to be provided for the RCMP group. A look at other service categories reveals that the pattern is consistent with the earlier statement that veterans are by and large an older group whose dental needs are substantially different from those of the RCMP officers. However, because the number of services provided is influenced by the size of the user group, an attempt has been made to determine the distribution of dental treatments per user by service category and patient group. These data appear in Table 3.8. The data indicate that the average patient received 4.85 dental services, of which 1.5 were dental X-rays. Among the three groups, the average user from the RCMP received a somewhat greater number of dental services (5.86) than did the other two groups, although clients from other government departments were fairly close to the RCMP in their per capita consumption of services. The table confirms that extractions and dentures constituted a significant proportion of the services provided to the veterans group, certainly a much higher level than that provided to the other two client categories.

Table 3.7
Veterans Affairs Canada Distribution of Dental Services by Category and Patient Group, 1982-83

Treatment Category	Veterans	Other Government Departments	RCMP	Estimated Total	Column Per cent
Examinations[a]	—	—	—	—	—
Radiograph	20 234	899	31 055	52 188	30.7
Preventive[b]	6 758	234	8 691	15 683	9.2
Restorative[c]	17 591	595	16 517	34 743	20.4
Periodontic[d]	5 365	224	6 697	12 286	7.2
Prosthodontic (Rem.)[e]	14 652	63	633	15 348	9.0
Prosthodontic (Fix.)[f]	121	0	691	812	0.4
Extraction[g]	15 706	127	2 218	18 051	10.6
Other[h]	11 848	315	8 604	20 767	12.2
All categories	92 275	2 457	75 106	169 878	100.0[i]

a. Data not obtainable from DVA.
b. Represents prophylaxis only.
c. Includes temporary fillings, amalgams, silicate and composite resins, inlays and individual crowns. May include a few restorations on primary teeth of dependents.
d. Undefined, may include subgingival scaling.
e. Includes complete and partial dentures, repairs and relines.
f. Includes bridges and bridge repairs.
g. May include a very small number of deciduous teeth of dependents.
h. Includes endodontics, orthodontics as well as miscellaneous services.
i. Does not add to 100 because of rounding errors.

Table 3.8
Veterans Affairs Canada Estimated Distribution of Dental Treatment per User by Service Category and Patient Group, 1982-83[a]

Service Category	Veterans	Other Government Departments	RCMP	Combined
Examination	—	—	—	—
Radiograph	0.93	1.91	2.42	1.49
Preventive	0.31	0.50	0.68	0.45
Restorative	0.81	1.26	1.29	0.99
Periodontic	0.25	0.48	0.52	0.35
Prosthodontic (Rem.)	0.67	0.13	0.05	0.44
Prosthodontic (Fix.)	0.01	0.00	0.05	0.02
Extraction	0.72	0.27	0.17	0.52
Other	0.55	0.67	0.67	0.59
All Categories	4.25	5.22	5.85	4.85

a. Number of users in each group as estimated in Table 3.6.

3.4.6 Expenditures

Program expenditures for dental services on behalf of veterans, RCMP officers and other government departments are shown in Table 3.9. The figures given should be considered as reasonably accurate but nevertheless approximate estimates. For the fiscal year 1982-83 we estimate that nearly $9 344 000 has been expended to provide dental services for the three client groups of Veterans Affairs. Of this amount, just over $6.5 million was paid out under the Dentist of Choice modality. The balance of just under $2.8 million represents the cost of running the DVA dental clinics across Canada. In examining these figures, it should be observed that the DOC expenditure is probably fairly accurately compiled. The clinic cost estimate is also quite accurate but does suffer from not including certain types of costs which would be required if normal cost accounting procedures were followed. Footnote a. to the table itemizes some of these. Furthermore, the 1982-83 clinic cost was derived, not by a proper cost analysis, but by increasing the 1981-82 figure by 6 per cent, in line with the federal government's "six and five per cent" guideline program. The 1981-82 DVA clinic cost figure is believed to be quite accurate. The expenditure figures indicate what was also shown by the treatment figures; namely, that the DOC portion is the larger part of the overall program. Furthermore, since 1980-81 there has been a fairly significant increase in DOC expenditure.

With respect to these expenditure data, three other points may be made. First, when expenditure and service data are put together, the average dental service seems to cost $55. This figure would be higher if X-rays were eliminated from the count of the dental services. Second, the cost of providing dental services to just over 35 000 users comes to an average figure of $267. Considering the large number of dentures that are produced under the aegis of the DVA program, this is not an unreasonable figure. It should also be remembered that average dental care expenditures for a group of adults will always be higher than for a mixed group comprising adults and children. Finally, it must be realized that the Department of the Solicitor General, and other government departments to a lesser extent, share in financing the dental program. Thus, the net expenditure by Veterans Affairs may be reduced by almost $3.4 million, bringing its share of the program to just under $6 million.

Table 3.9
Veterans Affairs Canada
Program Expenditures for Dental Service on Behalf of
Veterans, RCMP, and Other Government Departments

Fiscal Year	DVA Clinic Cost[a]	DOC Expenditure	Total Cost[b]
1980-81	$ N/A	$5 143 007	$ N/A
1981-82	2 637 484	6 128 162	8 765 646
1982-83	2 795 733[c]	6 548 179	9 343 912

a. These are costs reported by Veterans Affairs. They do not include rental of clinic space, equipment and building depreciation, utilities, and in some cases dental supplies, telephone, and office supplies.

b. The Department of the Solicitor General and other government departments reimburse DVA for part of the total expenditure. For example, of the $9 343 912 expended in 1982-83, DVA will receive $3 364 209 by interdepartmental transfers.

c. This figure is estimated by raising the 1981-82 cost by six per cent in line with the federal government's "six and five" guidelines.

3.5 Dental Services for Indians and Inuit

Although the provision of health services is a provincial responsibility, the federal government has continued to provide a range of specific health service programs, including dental care, that are in the national interest. To administer these programs, the Department of National Health and Welfare established the Medical Services Branch in 1962. Among the programs administered by the Branch is the Indian and Inuit Health Services. It should be noted, however, that by March 31, 1981 the federal government completed an agreement which turned over the administration of health services for the Indians and Inuit of Northern Québec to the Government of Québec.

The objective of the dental care program for Indians and Inuit is to provide effective and economical preventive and treatment programs so that both populations may attain the same level of oral health as is enjoyed by other Canadians living in similar geographic locations. The long-term objective of Medical Services is to improve dental health through intensive public health efforts, including sustained educational programs, preventive activities, and early dental treatment. Since most Indian and Inuit people live in the more remote parts of Canada, it has been very difficult for the Medical Services Branch to organize an effective preventive and treatment dental service for them. Initiatives were taken during the 1970s to try to improve this situation.

3.5.1 Eligibility

With current eligibility criteria, it has been estimated that over 350 000 Indians and Inuit are eligible for the Medical Services Branch dental program. This population is growing at a more rapid rate than the Canadian population as a whole. This is due to the relatively higher birth rates among both the Inuit and the Indian populations. Since dental caries is primarily a disease of childhood, this means that the challenge for effective dental care programs will grow in the future.

3.5.2 Dental Services Covered

The dental program offered through Medical Services provides a full range of basic preventive and treatment services. This includes the normal diagnostic procedures, including X-rays, all preventive services, restorative services using amalgam alloys and composite resins, prosthodontics, periodontics, endodontics, and oral surgery. Crown and bridge dentistry and orthodontic treatment are not provided as a matter of routine but may be covered with appropriate approval. In general, the Branch depends on the judgment of the attending dentist to determine the most appropriate range of services to provide. Certainly there are no policies which specifically exclude any category of dental treatment from the program.

3.5.3 Providers and Service Settings

Dental services for the Indian and the Inuit populations are provided both in government-operated dental clinics and by dentists in private practice. The government clinic service is designed to be mobile. Portable equipment is set up in nursing stations, private homes, tents, trailers, or whatever facility is available. In 1982, dental clinics were conducted in 318 communities in Canada where dental health care was the mandate of the Medical Services Branch. In 1983, there were 16 dentists and 55 dental therapists employed as federal civil servants.

Dental therapists are a relatively new form of dental manpower in Canada. The federal dental therapists are persons who have graduated from high school and have received an intensive two-year program in the techniques of basic preventive and restorative dentistry. In the field, dental therapists carry out treatment plans specified by supervising dentists. A distinguishing feature of the dental therapists employed by the federal service is that they treat both children and adults. Until recently, the National School of Dental Therapy was located at Fort Smith in the Northwest Territories. In September 1983 it moved to Prince Albert, Saskatchewan. The school was intended to provide the educational preparation for native and northern people to become dental therapists in their own communities and by 1983, 63 per cent of dental therapists in the Indian and Inuit Health Service were native or northern residents. Currently most of the students are of native or northern origin.

Another significant source of dental personnel is the private dental practitioner. Over 1 500 dentists in Canada provide dental health care services to registered Indian and Inuit people in private dental offices and public dental clinics. In the fiscal year 1978-79, the federal government paid $4.7 million to dentists participating in this way on a fee-for-service or sessional basis.

3.5.4 Administration

As might be expected, the administration of health services for Indian and Inuit citizens is widely dispersed and decentralized. This is in keeping with the population distribution of these people. The Medical Services Branch operates nine regions, with each region taking complete charge of its health program.

Each region recruits its own dentists and establishes, equips and maintains its own clinics. In as much as a region may be further subdivided into zones, the Medical Services Branch employs regional, zone, and field dental officers. The work of these dental officers is overseen by the Senior Dental Consultant at headquarters in Ottawa. The majority of the zone and field dental officers are employed in northern Canada, and in the areas of greatest native population density in the southern part of the country.

Over the years, Medical Services has found it effective to contract for the provision of services in certain regions. Through such contract mechanisms, the University of Toronto and the Ontario Dental Association play a role in the dental programs for Sioux Lookout and Moose Factory and in the National School of Dental Therapy. The University of Manitoba provides services under contract for the Keewatin Zone, Northwest Territories, and for under-serviced areas in Manitoba. The contract mechanism is also used to obtain services from individual private practitioners.

Recently, the Medical Services Branch transferred a number of health care responsibilities in the Baffin Zone to the Government of the Northwest Territories. Therefore, the Northwest Territories region is in a period of administrative transition.

3.5.5 Utilization

There are no data available which permit the determination of the dental care utilization rate among Indians and Inuit. Utilization undoubtedly differs greatly among communities since accessibility to dentist and dental therapist services will vary greatly. It has been estimated by some sources that perhaps 30 per cent of the eligible population receives some form of dental care from the Medical Services dental program.

3.5.6 Expenditures

The budgeted expenditure for the Medical Services Branch dental program was $21 597 804 in fiscal year 1982-83. This represents a cost of approximately $62 per eligible client. If the estimated utilization rate is approximately accurate, the per user expenditure would turn out to be $206, which is high compared to other programs surveyed. Three things should be remembered when examining these figures. First, travel and equipment-repair costs in northern Canada are much greater than in southern Canada. This considerably reduces the efficiency with which the dental program can be expected to operate. Second, the dental treatment needs of Inuit and Indian people may be substantially higher than those of the rest of the Canadian population. The Nutrition Canada Dental Report bears this out.* Third, 3.4 per cent of the overall budget ($734 325) was allocated for the dental therapist training program; when determining costs of dental care in other dental programs, training costs have usually not been included. However, the National School of Dental Therapy plays a major role in the delivery system, and perhaps at least a portion of the budget for the School is justified as treatment program expenditures.

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* For example, among persons 19 years and older, 31.5 per cent of Indians and 44.7 per cent of Inuit required extraction of four or more teeth versus 20.9 per cent for other Canadians. For the same age group, 26.3 per cent of Indians and 16.5 per cent of Inuit required seven or more restorations compared to 9.6 per cent for other Canadians.[10]

4.0 THE PROVINCIAL AND TERRITORIAL GOVERNMENT DENTAL CARE PROGRAMS

4.1 Introduction

The provincial and territorial dental care programs are difficult to describe in a concise and systematic fashion; the variety provided is considerably greater than is the case for provincial and territorial medical services. Thus, this chapter deals with several different program types; the age-targeted, universal dental care programs for children found in Newfoundland, Nova Scotia, Prince Edward Island, Quebec, and Saskatchewan, and for the elderly and their dependents in Alberta; at least some dental program activities in all other provinces including prevention-oriented programs and limited, dispersed, and variously-targeted treatment programs; and municipal programs whose expenditures and quantity of effort in some cases approached or exceeded those of the universal dental programs in some smaller provinces. In these cases, and where data were available, the municipal information was aggregated for the province and appears under the appropriate section in this chapter. These data were used particularly for those provinces/territories that did not operate universal children's dental care programs e.g. Alberta and Ontario.

The provincial level of government was the last to become active in the provision of dental services, whether preventive or treatment oriented. For the most part, serious provincial dental program initiatives date from 1950, when Newfoundland began the development of its children's dental care plan, but it was during the 1970s that the provinces became major elements of Canada's dental care delivery system.

4.1.1 Ramifications of Provincial and Territorial Entry into Dental Care

The introduction of age-targeted, universal dental care programs had some important ramifications for the structure of the dental care system as it then existed. First, the programs represented the most significant public sector activity in the dental care market to date. The provinces involved – Alberta, Newfoundland, Nova Scotia, Prince Edward Island, Quebec, and Saskatchewan – signalled that they were not fully satisfied with access to the private practice, fee-for-service dental care system. Without exception, the provincial programs represented more structured, more controlled and more accessible systems of dental care, at least for the target populations.

Second, the basic designs of the targeted universal dental programs saw the emergence of two distinct approaches to the provision of public dental care. Four provinces – Newfoundland, Nova Scotia, Quebec and Alberta – chose to use a publicly-funded, third-party payment approach. This method kept private dental practice intact, while shifting the financing mechanism from the out-of-pocket or private dental insurance mode to one based on publicly-funded third-party payment. But two provinces – Prince Edward Island and Saskatchewan – opted for a school-based, direct service delivery system using salaried, publicly employed dental care providers. These provinces both added to and partially displaced the previously existing dental care system. Recently Prince Edward Island has begun to revert to a publicly-financed, third-party payment mechanism.

A third significant development, associated with the Saskatchewan Children's Dental Plan, is that of the main dental care providers being dental therapists, who are modelled on the New Zealand dental nurse and are trained and licensed to work in Saskatchewan. Some graduates are also working in designated rural areas of Manitoba. Previously, a handful of New Zealand dental nurses had worked in the Yukon territory.

4.1.2 Data Sources and Limitations

The data for this chapter on provincial dental programs were obtained from interviews with all provincial senior dental consultants, and the regional dental officers, Medical Services Branch. A copy of the data collection guide used is reproduced in Appendix II. In many cases, the persons responding were able to furnish valuable additional information in the form of statistical summaries, periodic reports and special studies. In the case of the age-targeted children's programs, the data in this chapter were frequently abstracted from the annual statistical reports issued by the provincial agency administering the programs.

In must be recognized, however, that the data concerning the preventive, public health-oriented dental programs may be less complete and precise than one would like. Data are not accumulated in a manner which permits a completely accurate tallying of activities undertaken within these programs. In several cases the available data are not sufficiently disaggregated to permit separating of dental from medical information. In such cases, dental services, expenditures, and cost data may go unreported. However, when examined overall the omissions and inaccuracies will be minimal relative to the total level of dental effort being reported in this study.

4.2 Alberta Dental Care Under The Extended Health Benefits Program

Alberta's Extended Health Benefits (EHB) program was established in August 1973 to help the province's senior citizens, and is a component of the Alberta Health Care Insurance Plan. Besides dental benefits, the EHB program provides eyeglasses, hearing aids, and certain items of required personal medical equipment, appliances, and supplies for Alberta residents aged 65 years and over, their spouses and dependents. This program is unique among present provincial dental care plans in that it focuses not on children but on older adults.*

4.2.1 Eligibility

Persons registered under the Alberta Health Care Insurance Plan who are 65 years of age and over, and their spouses and dependents, are eligible for the program's benefits. Table 4.1 provides the age-sex specific distribution for eligibles in 1976 and 1981. Not unexpectedly, just over 83 per cent of those eligible each year are 65 years of age and over. About 57 per cent of the total number eligible each year were female. Eligibility automatically commences at the 65th birthday; it ceases with the cancellation of registration under the Alberta Health Care Insurance Plan, for example, when persons permanently move from Alberta. At the death of principal beneficiaries, spouses under age 65 and dependents remain eligible until the last day of the second month following the death. (Prior to 1982, this eligibility continued for just 30 days after the death). The exception here is that an approved program of major orthodontic care begun under the program for the spouse or dependent may continue until completion or until the program's $1 200 limit is reached.

Table 4.1
Alberta Extended Health Benefits Dental Program
Persons Eligible for Dental Services by Age and Sex,
1976 and 1981

	1976			Estimated 1981[a]		
Age Group	Male	Female	Total	Male	Female	Total
Under 5	92	83	175	102	101	203
5–14	960	957	1 917	1 062	1 159	2 221
15–24	2 416	2 011	4 427	2 672	2 436	5 108
25–44	128	281	409	142	340	482
45–64	2 009	19 301	21 310	2 223	23 385	25 608
65–69	23 724	24 648	48 372	27 005	30 420	57 425
70–74	18 984	19 030	38 014	20 050	23 070	43 125
75 & Over	24 400	29 895	54 295	27 190	35 650	62 840
TOTAL	72 713	96 206	168 919	80 446	116 561	197 012

a. For persons 65 years and over, the 1981 estimates are derived from the 1981 Canadian census. For the younger age groups, the ratio of the age-sex specific group to the sex-specific total for persons 65 years and over was assumed to be the same as in 1976.

4.2.2 Dental Services Covered

The EHB program covers the following dental services:

(1) The filling, extracting, and repairing of natural teeth by a dentist.
(2) Orthodontia by a dentist.
(3) The provision of partial and complete dentures and repairs to dentures by a dentist.
(4) The provision of complete dentures and repairs to dentures by a dental mechanic.

This general listing of services taken from a publication describing the plan for the general public does not do justice to the comprehensive coverage actually available. Examination of the schedules of eligible services, which are distributed to dental mechanics and dentists, shows clearly that an impressive range and depth of benefits are available under each of the traditional categories of dental service which are not specifically mentioned in the general list above.

Though the dental services available as benefits under the program are numerous, payments for dental services by the program on behalf of any one person must not exceed $1 200 for any two consecutive calendar years as measured from billing dates. Prior to January 1, 1981, the maximum payment was $1 000.

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* Editor's footnote: See also Section 4.13 for the Yukon's dental care program for the elderly.

There are, of course, some limitations in addition to the $1 200 maximum.

(1) One complete denture or reset (including rebase) for each arch once every five years.
(2) One partial denture for each arch once every five years.
(3) Within a five-year period it is possible to obtain a partial denture for one arch and have it replaced by a complete denture.
(4) One denture reline or rebase every two years.
(5) Major orthodontics must receive prior approval by the Alberta Dental Association and then be approved by the plan.
(6) Gold inlays on dentures are not covered.
(7) Certain restrictions apply to occlusal adjustments.

4.2.3 Providers and Service Settings

Dental services under the EHB program are provided in the offices of dentists (general practitioners and specialists) and dental mechanics in private practice. Since the program's inception, participation by the province's dentists and dental mechanics has been high. For example, from 83 per cent to 90 per cent of the licensed dentists in Alberta have treated patients under the program annually, and since 1979, 100 or more dental mechanics have participated each year.

4.2.4 Administration

Those eligible for the EHB program pay no premiums. The program is funded from general revenues and is currently administered by the Department of Hospitals and Medical Care formed in 1978.

The fee-for-service payments to providers for dental treatment rendered under the EHB program are guided by schedules of benefits developed each year. Initially, agreements were negotiated between the program and each of the two provider groups. In the early years of the program the Alberta Dental Association (ADA) established an Assessment Board to deal with the programs administration, but since 1978 there has been no formal agreement between the ADA and the government. For dental mechanics, most of whom have individual agreements with the government, the fee schedule is issued by the government. For dentists, two schedules — one for dentists in general practice and one for licensed dental specialists — are issued by the Alberta Dental Association each year, normally after consultation with government officials. Initially it was agreed that meetings were to be held annually between government and provider representatives concerning the program and the up-coming schedules of benefits.

The rates payable to dental mechanics and dentists under the fee schedules were increased by five per cent for all service items as of January 1, 1983. In 1983, the increase was just over 18 per cent and in 1981 it was 11.6 per cent. Currently, the fees paid to dentists in general practice under the EHB program are about 73 to 74 per cent of the fee for the identical items listed in the Alberta Dental Association Fee Guide. This is down somewhat from the 1982 figure of 78 per cent.

The current agreements between the dentists and the government permit the extra-billing of patients, but require that these practitioners advise patients of their billing practices prior to providing any treatment. Practitioners may bill the plan directly, or patients directly or both. A 1982 survey conducted by the Alberta Dental Association showed that 75 per cent of respondents billed the plan directly, 9 per cent billed the patient only, 16 per cent billed both. However, the validity of these data is uncertain since only one-third of Alberta dentists responded to the questionnaire. No conclusions can be drawn from these data regarding extra-billing since the method of payment is independent from the amount of payment.

In the case of dental mechanics, the large majority have agreements with the government, which specify that senior citizens will not be extra-billed, and plan payments will be accepted as payment in full.

4.2.5 Utilization

Utilization of the dental component of the EHB program is displayed in Table 4.2. The 1974 data represent only six months of experience and the 1977-78 data are based on nine months, the latter due to a change of the program operating year to the government fiscal year cycle. The table leads to a number of observations. First, during the first seven years of operation, the program's utilization rate ranged between 25 and 27 per cent. However, in 1980-81 the utilization rate jumped to 35.8 per cent, a change for which no explanation has been given.

Second, the observed utilization rates are low, demonstrating that the elderly population does not make as much use of the dental care system as do children and adults in their working years. This observation has been made before, but it should be emphasized that this situation may be influenced to a considerable degree by a cohort effect.

That is, the current cohort of elderly may have developed their concept of oral health at a time when this received considerably less emphasis. As a result, the present generation of elderly may place less value on oral health and have lower expectations of the dental care delivery system than succeeding generations.

A third finding from Table 4.2 is that in a situation of free choice, 25 per cent of the elderly who actually sought dental services obtained them from a dental mechanic. Since not all elderly are dentulous (that is, have their own natural teeth), it follows that an even higher percentage of those seeking complete upper and/or lower dentures were turning to dental mechanics. Clearly, the old argument that the dental mechanic's dentures were available at a lower price is not pertinent for those eligible for the EHB program. It must be that either through custom or because of the nature of the relationship developed between dental mechanics and their clients, a significant proportion of elderly turn to this category of providers for what is a major dental service.

Table 4.2
Alberta Extended Health Benefits Dental Program
Dental Service Utilization Experience, 1974-83

Year	Number Eligible	Provider 1. Dentist 2. Dental Mechanic	Number of Users[a]	Number of Services	Number of Services Per User	Per cent Eligible Who Used Program
		1.	33 609	193 376	5.8	
1974-75	163 519	2.	10 449	22 555	2.2	
			44 058	215 931	4.9	26.9
		1.	34 296	191 256	5.6	
1975-76	168 919	2.	9 853	23 503	2.4	
			44 149	214 759	4.9	26.1
		1.	36 690	214 907	5.9	
1976-77	174 719	2.	9 909	25 774	2.6	
			46 599	240 681	5.2	26.7
		1.	36 456	198 939	5.5	
1977-78	178 871	2.	9 182	24 019	2.6	
(9 mos.)			45 638	222 958	4.9	25.5
		1.	39 326	212 857	5.4	
1978-79	184 323	2.	9 429	25 036	2.7	
			48 755	237 893	4.9	26.5
		1.	40 840	222 595	5.5	
1979-80	188 782	2.	11 176	30 754	2.8	
			52 016	253 349	4.9	27.6
		1.	55 500	252 833	4.6	
1980-81	194 975	2.	14 241	33 230	2.3	
			69 741	286 063	4.1	35.8
		1.	46 543	284 402	6.1	
1981-82	203 059	2.	13 549	33 147	2.4	
			60 092	317 549	5.3	29.6
		1.	51 589	329 816	6.4	
1982-83	209 059	2.	15 020	37 468	2.5	
			66 609	367 284	5.5	31.8

a. The calculation for the total number of users in a given fiscal year assumes that no patients received services from both a dentist and a dental mechanic in that year.

Table 4.3
Alberta Extended Health Benefits Dental Program
Dental Service by Age Group, 1975-76

Age Group	Number of Services	Per cent of all Services	Cumulative Per cent
Under 5	33	0.0[a]	0.0[a]
5–14	3 159	1.5	1.5
15–24	8 551	4.0	5.5
25–44	372	0.2	5.6
45–64	33 342	15.5	21.2
65–69	80 938	37.7	58.9
70–74	47 021	21.9	80.8
75 & Over	41 343	19.2	100.0
Total	214 759	100.0	—

a. More precisely, this figure was 0.02.

The distribution of dental services by age group is given in Table 4.3, these data being drawn from a special study undertaken in 1976.[11] The data indicate that 79 per cent of services were provided on behalf of persons 65 years and older. This is not surprising since 83 per cent of eligibles were also in this age group. Unfortunately, since the actual number of users in each age category is not known, the services per user cannot be calculated for each age group.

For the same year, 1976, Table 4.4 gives the distribution of dental services by service category. These data show that diagnostic (including x-rays) and preventive services accounted for 36.2 per cent of all services provided. Restorative dentistry represented 21.5 per cent of services, while periodontics accounted for just two per cent of services claimed. Oral surgery and prosthetics were the other two major service categories. Since a good proportion of dental mechanics' services would involve prosthetics, it would appear that approximately 24 per cent of all services were devoted to dentures.

Table 4.4
Alberta Extended Health Benefits Dental Program
Distribution of Dental Services by Category, 1975-76

Service Category	Number of Services	Per cent of all Services	Cumulative Per cent
Diagnostic	36 086	16.8	16.8
Prevention	41 594	19.4	36.2
Restoration	46 144	21.5	57.7
Periodontics	4 404	2.0	59.7
Endodontics	1 690	0.8	60.5
Prosthetics	28 549	13.3	73.8
Orthodontics	175	0.1	73.9
Oral Surgery	30 921	14.4	88.3
Other	1 693	0.8	89.1
Dental mechanic	23 503	10.9	100.0
Total	214 759	100.0	—

4.2.6 Expenditures

The expenditure experience with the EHB dental program is given in Table 4.5. Separate data are provided showing payments to dentists and dental mechanics. The table reveals that total expenditures have grown from $6.9 million in 1974-75 to $18.1 million in 1982-83. This means that per eligible person, the program expenditures have risen from $42.42 in 1974-75 to $86.36 in 1982-83. These figures indicate that spending by the dental program changed very little between 1974-75 and 1978-79, once the number of eligible persons had been accounted for. However, the situation altered noticeably in 1979-80 and again in 1980-81 when two successive spending increases can be observed. The expenditure jump in 1979-80 appears to be largely due to an increase in the cost of services, particularly those provided by dental mechanics. The 1980-81 expenditure increase is due to a combination of price rise and a nearly 10 per cent increase in utilization.

The constant dollar analysis reveals that in real terms total program expenditures fell until 1978-79, rose in 1979-80 but fell again in 1980-81 to a level well below the 1974-75 expenditure. Adjustments were made in 1981-82 which brought the constant dollar expenditure back to the level of the 1976-80 period. The 1982-83 expenditures have also risen slightly.

Table 4.5
Alberta Extended Health Benefits Dental Program
Nominal and Constant (1974) Dollar Expenditures

Year	Provider 1. Dentist 2. Dental Mechanic	Total Expenditures		Expenditures per Eligible	Expenditures Per User	
		Nominal	Constant[a]		Nominal	Constant
1974-75	1.	$5 576 571	$5 576 571		$165.92	$165.92
	2.	1 359 322	1 359 322		130.09	130.09
		6 935 893	6 935 893	$42.42	157.43	157.43
1975-76	1.	5 237 378	4 691 468		152.71	136.79
	2.	1 308 586	1 172 188		132.81	118.97
		6 545 964	5 863 666	38.75	148.27	132.82
1976-77	1.	5 870 558	4 927 855		160.00	134.29
	2.	1 350 704	1 133 691		136.31	114.41
		7 221 262	6 061 046	41.33	154.02	129.27
1977-78	1.	5 716 593	4 404 645		156.80	120.81
	2.	1 259 415	970 382		137.16	105.68
		6 976 008	5 875 027	39.00	152.86	117.78
1978-79	1.	6 536 622	4 639 012		166.22	117.97
	2.	1 420 000	1 007 768		150.60	106.88
		7 956 622	5 646 780	43.17	163.20	115.82
1979-80	1.	7 299 459	4 731 026		178.73	115.84
	2.	2 653 539	1 719 848		237.43	153.89
		9 952 998	6 450 874	52.72	191.34	124.01
1980-81	1.	9 145 598	5 360 479		164.79	96.59
	2.	3 572 453	2 093 910		250.86	147.04
		12 718 051	7 454 389	65.23	182.36	106.89
1981-82	1.	10 330 045	5 357 580		222.38	115.11
	2.	3 934 839	2 040 767		290.42	150.62
		14 264 884	7 398 347	70.25	237.38	123.12
1982-83	1.	13 334 872	6 139 530		258.48	119.01
	2.	4 767 854	2 195 176		317.43	146.15
		18 102 726	8 334 706	86.36	271.78	125.13

a. Expenditures deflated by the simple average of the September Consumer Price Index for Calgary and Edmonton, 1974 = 100.

A particularly interesting phenomenon is observed in the per user expenditure figures presented in Table 4.5. These show that from 1974 through to fiscal year 1978-79, the revenue per individual patient was consistently higher for dentists than for dental mechanics. However, the situation reversed suddenly and dramatically in 1979-80, when dental mechanics began to collect $237.43 per patient per year as opposed to $178.73 for the dentists. The gaps between the dental mechanics and dentists grew even wider by 1980-81 when the dental mechanics' per patient income grew to $250.86, while the corresponding figure for dentists fell to 164.79, a gap of $86.07 per patient.

It is clear that the dental mechanics' services more often involve dentures, which are expensive. However, that fact applied as much to the pre-1979 period as after. Why have things changed? The constant dollar analysis suggests that by 1980-81, the expenditure per patient treated by dentists was at only 58 per cent of its 1974-75 level, while expenditures per dental mechanics patient stood at 113 per cent relative to 1974-75. In part, the decline in the average number of services per patient treated by dentists may explain this trend, although when the 1980-81 data are combined with those of 1979-80, even this explanation loses some force. To the degree that it is valid, however, it may reflect a reduced need for certain categories of services traditionally provided by dentists. In addition, it is possible that there have been real changes in the relative prices of dentist and dental mechanics services, to the benefit of the latter group.

It is regrettable that more longitudinal data is not available for the Alberta EHB dental program, since it is the only universal dental care program in a Canadian province targeted at the elderly.* Not only may the oral health status of the eligible population be changing, but also attitudes as to acceptable dental care for the elderly. This should have an impact on the dental treatment pattern. One also wonders about the impact of the five-year limitation for denture replacement. Is there any evidence that this policy is working? It would also be worthwhile to determine whether the 25 to 35 per cent of the elderly who constitute the user group in a given year are largely the same individuals year after year. And is there any evidence that persons wait until 65 years of age to obtain major dental care, implying that needed care was postponed in the years just prior to reaching 65 years of age?

4.2.7 Special Programs

The Alberta Community Health Dental Services Division provides or supports a number of additional dental programs throughout the province. These are: (1) funding of local health authority dental programs; (2) dental services for underserviced areas through a variety of mechanisms; (3) cleft palate/lip programs, and (4) handicapped children's dental program.

There are 27 local health authorities in Alberta. All of them provide a range of preventive and/or dental health promotion activities. In addition, three local health authorities (Barons-Eureka-Warner, City of Calgary, and City of Edmonton) provide treatment programs. It is difficult to calculate the aggregate level of effort given over to this set of activities. A recent Community Health Dental Services publication indicates that the following personnel are engaged in the local health authority dental programs: 16 part-time and 7 full-time dentists; 102 dental hygienists; and 80 dental assistants.[12] Assuming all part-time dentists are quarter-time and allowing the following salary schedule: dentists, $48 000; dental hygienists, $22 500, and dental assistants, $13 500 it is revealed that the local health authority dental salary budget is $3.9 million. This is probably a conservative estimate since some of the part-time dentists are likely to be half-time, and because the three treatment programs engage up to seven additional full-time clinical dentists. Making the further assumption that materials, supplies and relatively extensive travel costs come to 25 per cent of the salary budget, an additional $975 750 is added to the program budget, for an estimated total of $4 878 750. As indicated, this is likely to be a very conservative figure.

The dental program for underserviced areas comprises three program elements. First, the Community Health Dental Division funds three mobile dental clinics which are used year-round and are staffed by dental and dental hygiene students from the University of Alberta, under the supervision of faculty members or practising dentists. (The size of the eligible population, number of users, and cost of this program are not known.)

Second, the Division has purchased seven other mobile dental clinics to permit dentists to provide dental treatment in a number of additional underserviced communities. The Division pays for the capital equipment and moving costs, and dentists practise on a fee-for-service basis. Ideally, a dentist who practises in the subsidized mobile clinics would eventually set up a practice in the community. The budget for this activity has not been reported.

Third, as part of the Visiting Dentist Program, the Division makes portable equipment available and secures space to permit a dentist to provide dental services on a sessional basis for underserviced communities. No cost figures are available for this program component.

*** Editor's footnote: See also Section 4.13 for the Yukon's dental care program for the elderly.**

The Cleft Palate/Lip Program provides dental services to persons of all ages who qualify by virtue of suffering from this congenital defect. The program covers most needed dental services, subject to approval by a provincial cleft palate clinic. Dentists are paid on a fee-for-service basis. In 1981-82, the Program received 2 266 claims for a total expenditure of $359 170.

The fourth program provides dental care for non-institutionalized handicapped children aged up to 17 years. The program provides comprehensive care for these persons although prior approval for extensive treatment plans may be necessary. Dentists treating children under the program are paid on a fee-for-service basis. Regardless of the extent of care needed, the Community Health Dental Division expects the guardians of handicapped children to pay a $75 fee to the Department of Social Services and Health. In 1981-82, dentists submitted 869 claims for a total of $106 220.

4.3 The Dental Care Plan of British Columbia

The short-lived Dental Care Plan of British Columbia was the most recently established of the universal provincial programs (January 1981) and the first to be suspended (September 1982). The program was introduced in a province which already had the highest proportion of its population covered by private group dental insurance, and which had the largest number of dentists per capita, 1:1586. Of the total population, 11 per cent was being supplied with fluoridated water by 1980.[13] The Division of Dental Health Services maintained various dental public health programs, particularly in areas of the province under-serviced by dentists, with a field staff of dental officers, dental hygienists and dental assistants. These programs included a school dental health program, staffed by dental hygienists and dental assistants, which provided oral hygiene instruction, dental public health education, and preventive activities including self-applied fluoride paste and mouth rinses to school children. As well, through the dental extern program the Division encouraged young dentists to establish practices in rural locations, and also provided dental treatment to people in underserviced areas from mobile dental units. In addition, the municipalities of Burnaby, North Shore, Vancouver, and West Vancouver operated dental health services, which included dental treatment and educational programs for certain age groups.

Initial proposals for a provincial dental treatment program identified children as the target group. Beginning in 1958, the Division of Dental Health Services of the British Columbia Ministry of Health conducted province-wide surveys of the dental health status of school-children, which indicated that dental disease was increasing and that large numbers of children needed dental treatment. As early as 1972, the NDP government professed its commitment to introducing some form of dental care program for children, and in 1973 the government established a committee to coordinate a Children's Dental Health Research Project, the goal of which was to develop recommendations for a children's dental care program. There was also a specific mandate to explore alternative ways of providing dental services through such a program. At the end of 1974, the committee published the final report of the project, which recommended a comprehensive dental care program for children that would provide proven dental disease preventive measures, dental health education, clinical treatment including emergency care, restorative services, surgical services, and limited specialty services for orthodontic and pedodontic treatment.[14] With the 1975 election came a change of government, and decreased support for a children's dental program.

In the following years discussion of alternative ways of providing dental care through public programs continued. Consumer groups such as the Social Planning and Review Council of British Columbia advocated a Saskatchewan-style program. The College of Dental Surgeons of British Columbia urged the government to subsidize private insurance for the elderly, the poor, and other people ineligible for private dental insurance. These debates took place through the seventies, a time when enrolment in private group dental plans was growing rapidly and the dental health status of British Columbia children appeared to be improving. Enrolment in private group dental plans grew first and fastest in British Columbia; estimates from various sources suggested that by 1979 between 50-70 per cent of the population were covered by private dental insurance. The British Columbia Children's Dental Health Survey of 1980 documented a dramatic improvement in the dental health status of children in all age groups; there were fewer children who required dental treatment and who had lost permanent teeth from dental disease. For example, though only 35.6 per cent of five-year-olds did not require any dental treatment in the 1958/60 survey, 63.2 per cent required no treatment in 1980. In the 15-year-old cohort, only 15.0 per cent had no need for treatment in 1958/60, but 57.9 per cent were free of active caries in 1980.

The Children's Dental Health Research Project Report had recommended a dental plan for children and explored a range of alternative program policies, but pointed out that "the final selection is unavoidably a political decision".[14] The Dental Care Plan of British Columbia announced by the Premier in March 1979 reflected the political preferences of the Social Credit Government. The Premier promised the program would provide, "a measure of protection for the high costs associated with basic dental care." (Press Release March 23, 1979) The

Minister of Health initially described the program as an extension of private insurance with premium subsidies for the elderly and poor, but with significant user co-payment requirements, a program which conformed in most significant aspects with policy advocated by the College of Dental Surgeons of British Columbia.

The original target date for the dental program, January 1, 1980, was postponed to March, and subsequently postponed further as the government continued to consider various policy options. The dental program which began January 1, 1981 was established by order-in-council under the existing legislation of the Medical Services Act. It lasted just 20 months until the first of September 1982 when the government discontinued the program for all eligibles except social assistance recipients, who had been eligible for public services before the program began anyway.

4.3.1 Eligibility

Four categories of persons were eligible for the Dental Care Plan of British Columbia.

(1) Clients of the provincial Ministry of Human Resources. (Families and individuals whose Medical Services Plan premiums were paid by the Ministry of Human Resources because they were recipients of income assistance.)

(2) Recipients of Premium Assistance. (Families and individuals whose Medical Services Plan premiums were subsidized by the government because their taxable income was below a certain level ($2470 in 1981).

(3) Senior citizens 65 years and over. (Those who received Premium Assistance for the Medical Services Plan were classified as category two and those who received income assistance were classified as category one.)

(4) Children 14 years of age and under. (Children of families receiving income assistance were classified as category one and those in low-income families were classified as category two.)

After September 1, 1982, only persons in category one, recipients of income assistance, remained eligible.

While the program was in operation, eligible persons were automatically enrolled if they were previously registered with the Medical Services Plan of B.C. Human Resources clients and children 14 and under (categories one and four) used their Medical Services Plan identity card to obtain services from participating dentists, but special Dental Care Plan cards were issued for Premium Assistance recipients and senior citizens (categories two and three).

The government predicted that approximately 915 000 of British Columbia's 2.7 million people would be eligible for the plan in the first year. As of July 31, 1982, the eligible population was 1 113 304 distributed over the four categories shown in Table 4.6.

Table 4.6
Dental Care Plan of British Columbia
Eligible Population July 31, 1982

Group Definition		Number of Persons
Category 1.	Human Resources clients	152 523
Category 2.	Recipients of Premium Assistance	263 194
Category 3.	Senior citizens	163 789
Category 4.	Children up to 14 years of age	533 798
TOTAL		1 113 304

4.3.2 Dental Services Covered

The purpose of the Dental Care Plan was to provide basic rather than comprehensive care. Like the private dental insurance after which it was modeled, the plan was designed to subsidize, not replace, out-of-pocket expenditures by the majority of participants.

The dental services covered by the Dental Care Plan were defined as "basic" dentistry plus dentures. These services, designated as Parts A and B, were as follow.

Part A Basic Dentistry

1. Diagnostic services: two oral examinations each calendar year, X-rays, consultations, pathological reports and other diagnostic reports as necessary.

2. Preventive services: dental prophylaxis and scaling twice each calendar year, application of topical fluoride twice each year for persons under 19, and space maintainers.
3. Restorative services: amalgam, synthetic porcelain, plastic, and composite resin restorations, as well as stainless steel crowns.
4. Endodontic services: root canal treatments of diseases of the pulp chamber and pulp canal.
5. Periodontic services: treatment of disease of the soft tissue and bones supporting teeth. (excludes tissue grafts)
6. Removable prosthetics: repair or reline of removable dentures.

Part B Removable Prosthetic Appliances

1. Full upper and lower dentures or partial dentures.

Orthodontics, gold restorations, and crowns and bridges were excluded from the coverage of the plan. Like the Medical Services Plan, the dental plan reimbursed participants for the cost of emergency treatment while outside the province, up to the amount the plan would have paid for services provided within the province.

The extent to which the costs of allowable services were covered varied for different categories of participants. For all participants there was an annual maximum payment of $700. For income assistance recipients and low income earners (categories one and two), the plan paid 100 per cent of the cost of these services up to the $700 maximum. The plan gave children 14 and under free access to preventive care by paying 100 per cent of a preventive care package that included oral examination, prophylaxis, and topical fluoride but paid just 50 per cent of the fee schedule for other services for children in category four. Senior citizens in category three were also required to pay 50 per cent of their dental costs. The maximum allowable fee for all covered services was established by a schedule of fees negotiated between the College of Dental Surgeons and the Ministry of Health.

Participants in the dental care plan paid no premium and had no deductible rates, although there was extensive discussion about including a deductible in the original plan design. In March of 1982, an annual deductible of $30 was proposed for all participants except the clients of the Ministry of Human Resources (income assistance recipients). This proposal was withdrawn before implementation; however, coverage for low-income participants (category two: recipients of Medical Services Premium Assistance) was reduced from 100 per cent of the cost of services to 75 per cent. This was one indication that the government was having second thoughts about the program even though it was operating within cost projections, as will be discussed in Section 4.3.6.

4.3.3. Providers and Service Settings

The British Columbia plan was solely private practice-based. Dentists were authorized to provide all covered services and denturists were permitted to provide, repair, or reline removable dentures (but not partial dentures). Dentists were paid according to a fee schedule negotiated by the Ministry of Health with the College of Dental Surgeons. Denturists were paid under a separate agreement negotiated with the Public Denturists' Society of British Columbia. One month after the plan began, 1 325 dentists had agreed to participate, 115 had opted not to participate, and approximately 60 had not yet declared their intention.

The Dental Care Plan's commitment to private practice dentistry led to conflict with some municipalities that for many years had provided dental treatment to certain children in clinics staffed by salaried personnel. After implementation of the provincial plan, these programs submitted bills to the Dental Care Plan for work done in the clinics. However, payments were delayed when the position was taken that only fee-for-service billing (and not salary or sessional billing) could be accommodated through the plan.

4.3.4 Administration

The Dental Care Plan of British Columbia was established by order-in-council as a regulation under the Medical Services Act and was administered by the Medical Services Commission, which also administered the Medical Services Plan. The plan was financed from general revenues; participants paid no premium.

The Medical Services Commission issued identification cards to eligible participants and paid claims for services provided under the plan. Participating dentists and dental mechanics accepted patients' Dental Care Plan or Medical Services Plan identification cards as authorization and billed the plan directly for services. Where appropriate, they also collected the user's portion of the fee. Non-participating dentists were required to notify patients of their non-participation in writing prior to any treatment. For these patients, the Dental Care Plan reimbursed the user for covered services.

In announcing the plan, the Minister of Health predicted that 60 people would be added to the Medical Services Commission to manage the additional work, but the maximum increase in administrative staff attributed to the Dental Care Plan was 35.

4.3.5 Utilization

No information has been made available on the number of people who received services through the Dental Care Plan or the number and types of services provided.

4.3.6 Expenditures

The Ministry of Health projected an expenditure of $85.3 million for the first fiscal year. The life of the dental care plan overlapped just one full fiscal year of the administrative agency, the Medical Services Commission. Dental service expenditures for this period (April 1, 1981 through March 31, 1982) were reported as $82 732 880 (Medical Services Commission, Annual Report 1981-1982). It appears, therefore, that the program was running within expected limits.

Expenditures for the first three months of the plan, January 1, through March 31, 1981, were $10 843 578, while expenditures for the equivalent period in 1982 were $19 098 671. Although this was an increase of 43 per cent, this did not necessarily represent an escalation in expenditures sufficient to cause concern. As a matter of course, it would be expected that expenditures during the first months of the plan would be low because fewer people would know about the program, and because it takes time to schedule appointments, complete dental work, submit claims, and in general get oriented to the system. Furthermore, the expenditure for the first quarter of 1982 constituted less than one-quarter of the total $85 million projected for the first year of operation, another indication that costs were within bounds.

Rough estimates were made of expenditures per person eligible over one time period for which expenditure data were made available. (Table 4.7) It is emphasized that these expenditures are for an eight-month period only from August 1, 1981 to March 31, 1982, and that the population estimates were as of July 31, 1982. For estimation purposes, it was assumed that the distribution of the eligible population among the four eligibility categories was fairly constant over the period that the plan was in operation. (Partial data for December 1981 supported this assumption.)

Table 4.7
Dental Care Plan of British Columbia
Estimated Expenditures Per Person Eligible
August 1981–March 1982

Eligibility Category	Number Eligible[a]	Dental Service Expenditures[b]	Expenditures Per Eligible
1. Human Resources	153 523	$ 8 572 689	$56.20
2. Low Income	263 194	21 283 207	80.90
3. Senior Citizens	163 789	4 162 360	25.40
4. Children	533 798	13 358 181	25.00
Total	1 113 304	47 376 437	$42.60

a. As of 31 July 1982.
b. As reported by W.H. Thorpe, Claims Manager, Medical Services Plan of British Columbia. Personal communication 19 April 1983.

In comparing expenditures between eligibility categories it should be recalled that for categories one and two the plan paid 100 per cent of covered services during this time period, while category three participants were reimbursed for 50 per cent of the cost of services, and category four participants were reimbursed 100 per cent of the cost of a standard package of preventive services, but just 50 per cent of other services. With this in mind, it appears that expenditures per eligible in categories one, three and four are somewhat comparable, although expenditures for children seem somewhat low. The markedly greater cost per eligible for category two gives one clue as to why the government might have chosen to decrease the reimbursement percentage from 100 per cent to 75 per cent for users in this category. It should not be assumed, however, that this represented any excessive or unnecessary utilization of dental services by these participants. It is likely that persons in category two had the greatest unmet need for dental services. Persons eligible through categories one, three, and four were more likely to have been receiving basic care before the implementation of the Dental Care Plan. For example, Human Resources clients had been able to obtain dental services as part of the Income Assistance Program, and category three and four participants were persons with greater financial resources, by definition of the eligibility criteria. Category three excluded those senior citizens with the lowest incomes by classifying those receiving income assistance and those with very low incomes in categories one and two; therefore those persons eligible in category three would have been the relatively financially-advantaged seniors. The same criteria were applied to children of families on income assistance and low incomes were included in categories one and two. Thus, the fact that low income eligibles comprised less than 25 per cent of the eligible population but claimed almost 45 per cent of expenditures may be an indication that the dental plan was doing what the government claimed it should do, providing dental services for people who were in the greatest need and who were not covered by other programs.

The provincial government suspended the Dental Care Plan as of September 1, 1982. This was among the first in a series of actions undertaken that were intended to decrease government expenditures. Why was the dental plan scrapped? The simplest of the possible explanations may be the issue of seniority; as the most recently established program, it was perhaps the easiest to discontinue.

In addition, the government appeared to have no strong policy commitment to the Dental Care Plan as was indicated by the series of delays and policy changes preceding implementation of the plan. The intention to provide a dental plan was announced just prior to the May 1979 election, before a program had been designed. Without a conception of the design of the program there was no way to accurately predict costs. Nevertheless, allocations for an unspecified dental plan were included in four provincial budgets before a plan was actually implemented; the fourth budget allocation in early 1980 was $30 million. When the formal announcement of the Dental Care Plan was made July 23, 1980, the projected cost was $85.3 million for the first fiscal year, which suggests that substantial revisions in design and/or expenditure estimates were made in the three months preceding the final announcement.

Though the Dental Care Plan was not overly generous, paying as it did just 50 per cent of basic expenditures for the majority of eligibles (senior citizens and children 14 and under, who accounted for over 60 per cent of eligibles); it was substantially more generous in defining eligibility and reimbursement policies than had been promised in early announcements. In December 1979, the Minister of Health said the government was committed to a design which would cover only people without private dental insurance for basic dental services and would include substantial annual deductible and user co-payment features. Ultimately, all children up to fourteen were eligible, not just those whose parents did not have private insurance. Although the annual deductible was not implemented, the government retained a preference for that option and did consider introducing it in March 1982.

4.4 Manitoba Children's Dental Care Program

Since the 1950's, Manitoba has provided a variety of dental services to children. By the early 1960s, these included education, prevention and treatment programs and the recruitment of dentists, for under-serviced areas. Services were provided in two ways. First, in cooperation with local communities, the Dental Public Health Service operated mobile dental units which provided regular dental care without charge to young children in communities where no dentist was practising. If time permitted, older children and other residents could also be treated, but were charged fees payable to the Ministry of Finance. This service was financed jointly by the Department of Health and participating municipalities or other local agencies such as voluntary organizations or school districts. The treatment program included:

1. Emergency service, relief of pain and infection, for all children;
2. all necessary treatment for preschool children and those in grades one through three. Treatment was extended incrementally to other ages as facilities and funds allowed;
3. recall visits to participating communities every six to eight months.

Second, the Department of Health and the Manitoba Dental Association developed an incentives program to recruit and employ dentists for rural Manitoba. Beginning in 1963, dentists were offered:

1. Full-time employment with private practice privileges;
2. per diem employment with supporting services and facilities supplied by the Department of Health;
3. private practice on a fee-for-service basis with portable dental equipment loaned, transported and set up by the Department in the location chosen by the dentist;
4. fully-equipped stationary satellite dental office.

In spite of these incentives, most Manitoba dentists continued to practise in the urbanized area in and around Winnipeg even though half of Manitoba children lived in rural areas. By 1968, some of the frustration felt with the intransigence of this problem was expressed in the annual report of the Department of Health and Social Services: "The incentives now available have failed to generate adequate dental care in rural areas. Other alternatives must be sought to make dental services available to the rural population."

The Manitoba Children's Dental Program (MCDP), was established to alleviate this situation by providing routine preventive and restorative dental treatment for children using salaried dental health workers based in rural areas. Toward this end, legislation was passed in June 1976 that established a Dental Health Workers Board and defined the training and boundaries of practice of dental nurses, dental hygienists, dental assistants and dental technicians. A pilot program began in three rural regions in October, and the program was launched officially on November 15, 1976.

The MCDP was closely modelled on the dental program for children in neighbouring Saskatchewan. Dental nurse/dental assistant teams, many of whom trained in Saskatchewan, provided 80 per cent of services, carrying out treatment plans based upon an initial diagnostic examination by a supervising dentist. Children with special medical risks or behaviour problems and children with treatment needs beyond the training of the dental nurses were referred to dentists in private practice.

During its first two years of operation the Program met criticism and increasing opposition from the Manitoba Dental Association. The Association expressed two principal concerns: first, that the dental nurses were working without direct, on-location supervision by a dentist; and second, but equally important, that providing dental services to children in this manner discouraged rural private practice by decreasing the potential patient population to a level below that which would maintain a dentist. In 1978, the newly-elected Progressive Conservative government authorized the Manitoba Dental Association to implement a parallel, publicly-funded dental service for schoolchildren in specified divisions. Since that time, the province has returned an NDP government, but the parallel services have been maintained.

4.4.1 Eligibility

From the beginning, eligibility for the MCDP was determined by age and residence. Initially, program planners projected coverage for all children three through twelve years of age. In 1981, with the return of the NDP government, enrollment criteria were revised and children born in 1969 and later will remain eligible for the program up to their eighteenth birthday. The program began as a pilot program with 1 400 six-year-olds in three school divisions; additional age groups and school divisions were then added by cabinet order at irregular intervals from 1976 through 1979. Though there was no geographic expansion of the program from 1979 through 1983, the number of children eligible for service increased annually through the addition of new cohorts of six-year-olds.

Table 4.8 presents estimates of the number of Manitoba children of eligible age and the number residing in the areas serviced by the program from 1976 through 1983. As can be seen from this table, the proportion of Manitoba children eligible for the program has declined, although the number of eligible age cohorts has increased.

In 1982-83, an estimated 41 545 children in 29 school divisions (children born from 1969 through 1976 who were six through thirteen years old) were eligible to receive publicly-funded dental care. An estimated 88 074 children of those ages resided in the 18 school divisions not covered by the program. These divisions included the cities of Brandon, Portage La Prairie, Thompson and Winnipeg.*

Table 4.8
Manitoba Children's Dental Care Program
Number of Children Eligible

		Number Eligible[a]			
Year	Ages Covered	School-Clinic Regions	MDA Regions	Potential Number of Eligible Ages All Manitoba[b]	Percentage of Manitoba Children Eligible
1976-77	5–6	2 685	—	33 000	—
1977-78	6–7	9 417	7 050	33 000	49.9
1978-79	5–9	14 666	6 807	79 000	27.2
1979-80	6–10	14 534	8 577	79 000	29.3
1980-81	6–11	14 616	14 109	96 000	30.0
1981-82	6–12	17 201	19 681	113 000	32.6
1982-83	6–13	18 000	21 900	129 000	32.1

a. Estimates are from Department of Health Annual Reports.

b. Eligible age population for all Manitoba estimated from Manitoba Health and Social Development Statistics 1976-79, and from Statistics Canada Census data for 1980-82.

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* The City of Winnipeg has over the years provided treatment for children of low-income families in four clinics as well as screening of school children.

4.4.2 Dental Services Covered

The MCDP established a Standards Committee, which included two representatives from the Manitoba Dental Association as well as staff dentists from the MCDP, to develop the policy for covered services, establish guidelines for referred services, and advise on clinical standards for the program. A full range of essential dental services is sponsored; these include diagnostic and preventive services including oral hygiene instruction; nutritional and parental counselling, and restorative, endodontic, periodontic, and oral surgical services. With special approval, partial dentures may be provided. As of 1981, program policy excluded all orthodontics with the exception of space maintainers. From 1978 to 1981, some other orthodontic services were provided in the private practice component.

Under the Manitoba Dental Association private practice component, visual examination, prophylaxis, application of topical fluoride, and oral hygiene instruction are combined as a package of services and billed at one fee.

4.4.3 Providers and Service Settings

Originally, 80 per cent of MCDP services were provided by dental nurse/dental assistant teams. Team members generally resided in the region's largest community, and travelled to schools in the less populated parts of the region to enroll eligible children and provide treatment prescribed by a supervising clinical dentist. Where justified by the number of children, clinic facilities were constructed in the school. In less-populated school divisions, the clinical staff travelled with portable equipment. The goal was to visit each of the schools twice a year, thus providing regular dental care with appropriate follow-up.

Dental nurses provided all basic services; however, services beyond their training (e.g., extractions of permanent teeth, extensive restorations, fractured anterior teeth, etc.), and services for children with significant medical or behavioural problems were requested by referral from private practitioners. A fee schedule for referred services was established by the Standards Committee; the fees were based on those negotiated with the Manitoba Dental Association for the Department of Corrections and Community Services Social Allowance Dental Program. (See Section 6.4 of this report.) All dentists were authorized to provide emergency treatment, without referral, for children eligible for dental care under the MCDP outside of regular hours and when MCDP staff were not available. Dentists who provided emergency services for the relief of pain, infection, or control of hemorrhage were eligible to claim payment for those services from the MCDP.

Initial clinical staff in 1976 consisted of seven dental nurses, 13 dental assistants, and two supervising clinical dentists organized into seven dental nurse and assistant teams based in six communities. In July of 1977, expansion of program coverage from nine to 29 school divisions and three special schools resulted in siginificant increases in the number of staff. The clinical staff totaled 69: 22 dental nurses, 39 dental assistants, and eight supervising clinical dentists. This turned out to be the maximum size attained by the salaried clinical staff of the school-based treatment program.

As previously mentioned, in 1978 the Manitoba Dental Association instituted a children's dental service based on private practice and fee-for-service. The service operated in eight school divisions previously serviced by the existing program, and in two of three schools in another division. It was expanded during the 1979-80 school year and again in September 1980. With one exception, the regions annexed to the MDA component were regions withdrawn from the salaried dental service component.

As regions were transferred to the MDA component, some of the salaried staff were re-directed to providing community preventive services. The Department of Health has continued to expand preventive activities in the schools, including nutrition education, "brush-ins", and supervision of weekly sodium fluoride rinses in classrooms. These preventive activities are carried on in all areas of the province covered by the MCDP, including those regions serviced by the Manitoba Dental Association. Total staff of the Dental Health Services Division of the Department of Health was 93 in January 1983:

8 regional dentists
32 dental nurses
32 dental assistants
1 dental hygienist
4 equipment technicians
2 regional administrators
5 regional secretarial staff
9 central office staff

4.4.4 Administration

Both the salaried dental service and the private practice components of the MCDP are financed from general revenues allocated to the Department of Health. The Department directly administers the salaried dental service and distributes funds to the Manitoba Dental Association for the MDA component. The MDA is paid a fee for administering that portion of the Children's Program, including paying private practitioners for services provided to eligible children on a fee-for-service basis.*

In both components, children are enrolled through the cooperation of the staff of the school they attend and are screened in their home school, in the salaried dental service by a supervising clinical dentist employed by the Department of Health and in the MDA component by an MDA dentist. The MDA dentists are paid a fee of $5 per child for these visual examinations. Enrollment is recorded under the family's Manitoba Health Services Commission (medical care program) registration number.

In the school divisions where the MCDP is operated by salaried clinical staff, the children needing dental services are treated in the schools. After the examining dentist provides a written treatment plan, dental nurse teams visit the schools and provide treatment as prescribed. Dental health teaching is emphasized as part of the treatment regime, and to this end parents are invited and encouraged to attend all treatment appointments and oral hygiene instruction sessions.

In the MDA-serviced regions, the screening dentists send the children's parents reports of the initial screenings. It is then up to the parents to make appointments with private dentists and arrange transportation for their children to those appointments. Thus, under the MDA component, transportation of the user to the delivery site is a user expense. Under the school-based component, it is the providers who are transported to the point of service and thus transportation is part of program overhead.

4.4.4.1 Program Evaluation

In June 1979, a committee was established to review the cost-effectiveness, utilization, and standards of treatment of both service delivery modalities of the MCDP. The results of this evaluation were to be studied prior to instituting major changes in the program, but in September of that year the government announced expansion of the MDA-administered program. The 1980 interim report of the review committee suggested that both modalities were similar in cost, accessibility, and utilization by eligible children, and requested a clinical survey designed to compare the dental health status of the children treated. The review committee submitted its final report to the Minister of Health and the Executive of the Manitoba Dental Association in July 1981. Neither the findings of the survey nor the final report of the Program Review Committee had been released to the public by July 1983.

4.4.5 Utilization

As shown in Table 4.9, utilization rates for the Manitoba Children's Dental Program have not shown a steady increase. After increasing from the first to second year of the program as might be expected, utilization declined in 1978-79. This was the year in which the MDA component was introduced, so some of this decline may be attributed to the disruption caused as school divisions were transferred from one component to the other. Disregarding this year as atypical for this reason, it can be seen that utilization of the salaried dental service increased slightly each program year until 1981-82, when it dropped back to the 1977-78 level. Utilization in the MDA-serviced regions appears to have also increased only slightly each program year, and then declined in 1981-82. It has been suggested that overall utilization of dental services is under-reported in the salaried dental service regions inasmuch as some children are treated by private dentists. No studies of the extent to which families choose to have their children treated privately rather than in the school clinics have been reported.

Age-specific utilization rates provide a more precise look at changes in utilization. Table 4.10 presents these data for the salaried dental service only, since utilization by age cohort has not been reported for the MDA regions. Annual utilization by same-age children may be viewed by reading the figures on the diagonals. For example, among children born in 1969 who became 9 years old during 1978, 76.5 per cent were seen one or more times; 81.4 per cent of children born in 1970 were seen in their ninth year; and 86.2 per cent of children born in 1971 were seen in their ninth year; but only 81.4 per cent of children born in 1972 were seen in 1981-82, their ninth year. Utilization by all cohorts increased between five and nine per cent between 1977-79 and 1980-81, but utilization by all age cohorts dropped or stabilized in 1981-82. Thus the recent decline in utilization appears to have affected all age cohorts.

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* Oral examination, prophylaxis, fluoride application, and oral hygiene instruction are billed as one service at all initial and recall examinations. The fee for this package was set at $26.40 from April 1982 through March 1983.

Table 4.9
Manitoba Children's Dental Care Program
Utilization 1976 to 1982

Program Year	Age Cohorts Covered	Number Eligible		Number Using		Percent Utilization	
		Clinics	MDA	Clinics	MDA	Clinics	MDA
1976-77	5–6	2 685	—	—	—	76.2	—
1977-78	6–7	9 376	7 050	7 741	N/A[a]	82.5	N/A
1978-79	5–9	14 666	6 807	11 409	4 891	77.8	71.9
1979-80	6–10	14 194	8 577	11 725	6 690	82.6	78.0
1980-81	6–11	14 616	14 109	12 419	11 287	84.9	80.0
1981-82	6–12	17 201	19 681	14 147	15 333	82.2	77.9

a. The number of children treated was not reported. The MDA began providing services in specified regions mid-year, i.e., July.

Table 4.10
Manitoba Children's Dental Care Program
Age-Specific Utilization Rates
Selected Age Cohorts

Year of Program	Year of Birth			
	1969	1970	1971	1972
1978-79	76.5	77.6	77.8	75.9
1979-80	79.4	81.4	83.7	84.9
1980-81	82.3	84.1	86.2	86.5
1981-82	78.1	81.5	84.8	81.4

Table 4.11
Manitoba Children's Dental Care Program
Distribution of Dental Services
1976-77 Through 1981-82

Year[a]	Program Component[b]	Per cent							
		Examinations	X-rays	Prevention[c]	Restorations	Endodontics	Orthodontics	Extractions	Other[d]
1976-77	Clinics	8.2	20.8	19.7	41.4	4.3	0	4.1	0.5
1977-78	Clinics	12.9	23.0	23.2	34.4	3.4	0	2.6	0.3
1978-79	Clinics	15.9	22.4	24.9	30.8	2.9	0	2.6	0.4
	MDA	14.4	9.6	43.3	24.3	1.9	1.0	5.1	0.4
1979-80	Clinics	23.0	11.7	32.7	24.5	1.4	0.3	2.5	3.9[e]
	MDA	15.8	9.9	47.5	19.8	1.3	0.7	4.4	0.6
1980-81	Clinics	19.1	22.2	28.6	25.4	1.3	0.4	2.8	0.2
	MDA	15.0	17.8	45.0	16.4	1.0	0.6	3.8	0.4
1981-82	Clinics	19.2	24.6	27.2	24.2	1.2	0.5	2.6	0.5
	MDA	15.3	18.6	45.8	15.2	0.7	0.5	3.6	0.5

a. Data for the salaried dental service component for every program year are reported for a fiscal period from 1 July through 30 June. Data for the MDA component are for varying 12-month fiscal periods. For 1981-82, the fiscal year was 1 January to 31 December.

b. The salaried dental service component of the MDCP is designated here by "Clinics". The private practice-based component is designated by "MDA".

c. Under the private practice component examination, dental prophylaxis, topical fluoride application and oral hygiene instruction are billed at one combined fee. The method of reporting these services has varied each year, but data presented here assume all four services were provided as part of each MDA initial and recall package.

d. Other services include various infrequent diagnostic, preventive, restorative, and surgical services such as: diagnostic models, discing and slicing, sedative dressing, retentive pin placement, periodontal and prosthetic services.

e. "Other Services" reported for this year but not in preceding or subsequent years included: provision of drugs, unusual time, referred service, special consultant appointment.

Table 4.11 presents a percentage distribution of dental services by category and year. Examinations, X-rays and preventive services constituted an increasing proportion of services provided, so that by 1981-82 these three services accounted for 71 per cent of services in the salaried dental service and almost 80 per cent of services in the private practice component. The private practice component has consistently claimed for more preventive services than have been reported by the salaried component, e.g., 45 per cent compared to 27 per cent in 1981-82. As noted in footnote c. to the table, the method of counting these services differs between the two program components.

While diagnostic and preventive services have increased, restorations and extractions have decreased as a proportion of total services. Although there are differences between the two delivery components in these categories, the proportion of restorations has been consistently lower, and that of extractions higher, in the private practice component than in the salaried component. In 1981-82 restorations were just over 24 per cent of services in the salaried component and 15.2 per cent in the private practices.

Turning to consideration of the services provided per treated child (Table 4.12), it appears that the mean number of restorations per child is decreasing in both delivery components. After a sharp decline in the first years of the program, the number of extractions per child has been quite consistently around 0.22 in the salaried component; however, extractions have decreased less and are still slightly more frequent in private practices, at 0.38 per child.

4.4.6 Expenditures

The cost of all Manitoba Dental Health Services activities, including prevention, research, administration, and dental treatment services provided through both delivery components of the Children's Dental Program was approximately $3 997 000 for fiscal year 1981-82. The Manitoba Dental Association was paid $1 590 928 for services provided to children through private practices and $82 451 for administrative services. This represented about $109 per treated child. The remaining $2 406 072 was for personnel and supplies to provide treatment services for 14 147 children; daily school classroom brushings for 7 700; health education for 33 700; a weekly fluoride rinse program for 37 200 children throughout the province, and a preventive dental public health program for senior citizens in certain regions.

Table 4.12
Manitoba Children's Dental Care Program
Mean Dental Services Per Treated Child
1976-77 Through 1981-82

Year[a]	Program Component[b]	Examinations	X-rays	Prevention[c]	Restorations	Endodontics	Orthodontics	Extractions	Other[d]
1976-77	Clinics	0.96	2.41	2.27	4.93	0.50	0	0.47	0.06
1977-78	Clinics	1.45	2.59	2.62	3.88	0.38	0	0.29	0.04
1978-79	Clinics	1.34	1.90	2.10	2.62	0.25	0	0.22	0.04
	MDA	1.63	1.08	4.89	2.74	0.21	0.11	0.58	0.05
1979-80	Clinics	1.96	1.00	2.78	2.09	0.12	0.02	0.21	0.33[e]
	MDA	1.64	1.03	4.92	2.05	0.13	0.07	0.46	0.06
1980-81	Clinics	1.54	1.80	2.31	2.06	0.11	0.03	0.23	0.02
	MDA	1.51	1.79	4.52	1.64	0.10	0.06	0.38	0.04
1981-82	Clinics	1.55	1.99	2.20	1.96	0.10	0.05	0.21	0.03
	MDA	1.61	1.96	4.83	1.60	0.07	0.05	0.38	0.05

a. Data for the salaried dental service component for every program year are reported for a fiscal period from 1 July through 30 June. Data for the MDA component are for varying 12-month fiscal periods. For 1981-82, the fiscal year was 1 January to 31 December.

b. The salaried dental service component of the MDCP is designated here by "Clinics". The private practice-based component is designated by "MDA".

c. Under the private practice component examination, dental prophylaxis, topical fluoride application and oral hygiene instruction are billed at one combined fee. The method of reporting these services has varied each year, but data presented here assume all four services were provided as part of each MDA initial and recall package.

d. Other services include various infrequent diagnostic, preventive, restorative, and surgical services such as: diagnostic models, discing and slicing, sedative dressing, retentive pin placement, periodontal and prosthetic services.

e. "Other Services" reported for this year but not in preceding or subsequent years included: provision of drugs, unusual time, referred service, special consultant appointment.

4.5 The New Brunswick Dental Health Services Program

In 1972, the New Brunswick Department of Health launched a dental health services program. During its first three years of operation, the program offered preventive and dental health education services throughout the province. These activities were implemented in various public schools and included "summer topical fluoride clinics". A second class of activity was introduced in 1975 when the program began to offer dental treatment services to targeted groups of children. Since that time, both the prevention and treatment components of the the programs have been enhanced in a variety of ways. For example, the number of children eligible under the targeted dental treatment program has been enlarged. On the preventive side, a province-wide weekly fluoride mouthrinse program was introduced in grades 1 to 6 in 1979. The manpower to provide these services has been augmented accordingly.

In the context of the present report, two features should be noted that distinguish the New Brunswick dental health services program from publicly-funded children's dental care programs in some other Canadian provinces. First, the New Brunswick program is targeted at selected groups of children rather than providng universal coverage. Second, for the most part the dental manpower used to provide treatment services is employed by the province, with only limited use being made of private practice dentists. Although the latter is not a unique feature, it is a less frequently employed system for delivering dental treatment services to children.

4.5.1 Eligibility

All New Brunswick school-children in grades one through six are offered various preventive services. With respect to the treatment program, children can become eligible by one of two mechanisms. First, in local school districts without a resident dentist all children in grades one through three are eligible for basic dental care. Second, children in grades one through 12 whose families are categorized as underprivileged are also eligible for basic dental treatment. The mechanism to identify the latter group of potential patients is relatively straightforward. Generally, public health nurses or dental hygienists will identify families and refer them to the dental branch in the health department, where the family's current weekly income is determined. If the family income is less than 75 per cent of the average weekly wage for families of equivalent size, its schoolchildren become eligible for dental treatment. The family's status may be reviewed twice a year. The average weekly wage for families in New Brunswick is determined by the Planning and Evaluation Division of the provincial government.

Unfortunately, data are not available as to the average annual number of children eligible for treatment services through either one of the two mechanisms described above. With respect to the preventive activities, particularly the flouride mouthrinse program, these were available to 72 459 children in 1982-83 of which 66 784 or 92.2 per cent participated.

Another distinguishing feature of the New Brunswick dental treatment program is that it makes no use of an age criterion for determining who may receive services. Instead, the program is limited to specific grades in dentally under-serviced school districts, and to children of families who fit certain economic criteria as determined by a means test.

4.5.2 Dental Services Covered

The New Brunswick dental treatment program provides a broad range of diagnostic, preventive, and therapeutic dental services. These include examinations, X-rays, topical fluorides, amalgam and composite restorations, stainless steel crowns, endodontic therapy, and extractions where necessary. Orthodontic care is not a routine part of this program.

4.5.3 Providers and Service Settings

The prevention and dental health education activities are carried out by a provincially-employed core of dental hygienists. At the present time, 13 full-time and two half-time dental hygienists are employed in this way. The treatment program is operated by five dentists employed by the Department of Health. Ad hoc arrangements have also been made to engage private practice dentists on a sessional basis. That is, dentists are engaged on a per half-day basis for the purpose of offering care in regions that may not be reached by the corps of salaried dentists. The salaried dentists work out of three regional dental clinics, and the private practice dentists operate two mobile facilities. At one time, the province operated three mobile clinics, but as more dentists are locating in previously underserviced areas, the need for the mobile clinics has diminished and a gradual phasing out of these facilities has begun.

4.5.4 Administration

The dental health services program is operated by the Dental Health Services Branch which functions in the Personal Health Services Division of the Department of Health. The program is headed by a dentist who is assisted by a small clerical staff. The major administrative activities include personnel management, program planning, interagency communications, maintaining data on dental manpower in the province, administering the means test for eligiblity status determination, and the ordering and distribution of supplies and equipment. The activities of the dental health services program are funded out of the province's Consolidated Fund. There are no user fees within the program.

4.5.5 Utilization

Reference has already been made to the 92.2 per cent participation rate in the program's educational and fluoride mouthrinse activities. Insofar as the treatment activity is concerned, the lack of data with respect to the average annual eligible population makes it impossible to calculate utilization rates. However, data on visits and estimates with respect to program users are given in Table 4.13 for the years 1980-81 to 1982-83. The table shows that in 1982-83, children in grades one to three residing in underserviced school districts made a total of 4 681 visits. Children in grades one through 12 from underprivileged families made approximately 3 000 visits. Assuming that the average user incurred 1.8 visits, it is estimated that a total of 4 212 individual children received dental treatment under the program. In 1982-83, New Brunswick had 35 000 children in grades one through three and a total of 115 000 children in grades one through twelve.

Table 4.13
New Brunswick Dental Health Services Program
Utilization of Treatment Services, 1980-83

Final Year	Type of Participant[a]	Number of Visits	Estimated Number of Users	Total Number of Services
1980-81	1.	5 206	2 892	15 974
	2.	2 854	1 586	7 507
1981-82	1.	4 932	2 740	13 804
	2.	3 105	1 725	8 032
1982-83	1.	4 681	2 601	14 065
	2.	3 024	1 667	7 833

a. Type 1 participants are children in grades 1–3 who reside in school districts without a resident dentist. Type 2 participants are children in grades 1–12 eligible as a result of a means test.

4.5.6 Expenditures

It is difficult to obtain precise expenditure information for the dental health services program. However, assuming that the program expenditures are close to the proposed annual budgets, approximate cost figures can be estimated. Hence, for the fiscal year 1980-81, the total dental program cost has been estimated at $798 172, for 1981-82 at $803 900, and for fiscal 1982-83 the budgeted expenditure was $926 600. There is no breakdown of budget allocation to the treatment versus the preventive component of the dental program. Hence, it is impossible to calculate average costs per visit or average cost per user for either one of the two main program activities. Undoubtedly, such data would be valuable for program evaluation and the formulation of future policy directions. It should also be borne in mind that the cited budget figures include allocations for under-serviced community settlement grants to dentists ($8 000 in 1982-83), and New Brunswick dental student bursaries ($1 500 in 1982-83).

4.6 Newfoundland Children's Dental Program

The Newfoundland Children's Dental Program, established by order-in-council in 1950, was the first such program in Canada. The British Commission Government, which ruled the colony of Newfoundland from 1934 to

1949, had introduced the public financing of health care, including capitation payments to physicians and cottage hospitals with salaried physicians.

4.6.1 Eligibility

Initially, the dental program's coverage was limited to five-year-olds and eligibility was conditional upon residence in a geographic area in which there was a participating private dental practitioner. Participating dentists worked part-time for the government plan at a specified hourly rate which was periodically revised. Although most dentists did participate, they tended to be located in urban areas so that the program's geographic coverage was very limited. Later, in 1965, the payment method was changed to fee-for-service and, about this same time, coverage was extended to include children six and seven years old. However, it was not until 1970 that universality was achieved (in principle if not in fact, since severe maldistribution of dentists remained) by removal of the eligibility requirement of residence in an area having participating dentists.

In 1971, the program was expanded to cover all children from birth to age ten years, and on April 1, 1978, eligibility was extended to 11- and 12-year-olds. See Table 4.14. In addition, certain other groups of children are eligible for the program's benefits in varying degrees up to 17 years of age: the children of social assistance recipients, wards of the government, and other designated children with severe dental and medical problems.

Table 4.14
Newfoundland Children's Dental Care Program
Children Eligible, 1970-82

Year[a,b,c]	Age Group Covered[c]	Number Eligible[d]
1970	5–7	40 600
1971-72	0–10	142 657
1972-73	0–10	141 630
1973-74	0–10	138 000
1974-75	0–10	136 700
1975-76	0–10	135 300
1976-77	0–10	133 100
1977-78	0–12	157 600
1978-79	0–12	153 600
1979-80	0–12	149 400
1980-81	0–12	146 500
1981-82	0–12	142 700

a. The program started in 1950 but appropriate data are not available prior to 1970. This also applies to 1970-71, 1971-72, and 1972-73.

b. Beginning 1980-81, program year is 1 April to 31 March. Prior to that, operating year was 1 September to 31 August, except for 1970.

c. In fact, an estimated 3 to 5 per cent of children treated were older than age of eligibility indicated. These were children of families on social assistance and some other special cases. Their presence has little impact on the statistics in Table 4.16 to 4.18.

d. Sources: Statistics Canada Publication 91-514, Project A; Statistics Canada Publication 91-520, Project 3, Statistics Canada Publication 94-772; Statistics Canada Publication 92-772.

4.6.2 Dental Services Covered

The basic dental services included under the children's plan are:

(1) biannual examinations;
(2) annual radiographs;
(3) annual prophylaxes;
(4) annual topical fluoride applications
(5) fillings;
(6) extractions;
(7) crowns;
(8) bridges;
(9) dentures;
(10) pulpotomies;
(11) root canal treatment of anterior teeth.

Note: Prior to April 1, 1982, radiographes, prophylaxes and topical fluorides were included as biannual benefits.

Extensive restorative work, endodontics, and replacement of anterior teeth must be approved by the dental division before treatment is begun. Individual consideration may be given for special cases and this allows for some flexibility. Orthodontic work beyond minor tooth movement to correct anterior cross-bites is not ordinarily covered; however, comprehensive orthodontic work is covered for certain social assistance cases and other special groups.

4.6.3 Providers and Service Settings

Since the inception of the program, nearly all private dentists in Newfoundland have participated. Private dental practitioners and dental hygienists working in the dentists' offices provide most of the dental services received by children through the program. However, children in some remote areas of Newfoundland receive dental services provided by salaried dentists employed by the International Grenfell Association.

4.6.4 Administration

Since May 1, 1965, dentists participating in the children's program have been paid fee-for-service. The schedule of fees is negotiated annually. In some years, an across-the-board percentage increase is made for all fees. It is more usual, however, that fees for particular services are adjusted upwards differentially according to their utilization frequencies in the previous year(s), resulting in a weighted percentage increase. In 1982, fees allowed for a number of common services were from 76 per cent to 85 per cent of the fees listed in the 1982 Newfoundland Dental Association fee guide.

On April 1, 1978, at the same time that 11- and 12-year-olds were added to the plan, a user fee of two dollars for each item of service was introduced. Diagnostic (examinations, X-rays), and preventive (prophylaxes, fluoride applications) services were exempted from the user fee.

All dentists but one bill the children's program administration directly for services they have provided, but must collect the user fees from patients. They are then reimbursed the amount of the charges they submit to the program less the user fee. It is not known whether all dentists routinely collect these user fees from their patients. Dentists who have chosen to participate in the program are not permitted to extra-bill patients.

Apart from the user fee, the children's program is funded from general revenues. There is however some cost sharing between different agencies and department for persons on social assistance and for other special groups. At present the program is administered entirely by the Division of Dental Services; a computer-based system to assist in this task is being developed.

4.6.5 Utilization

The estimated number of children receiving services and the per cent utilization for 1970 and 1973 through 1982 are presented in Table 4.15. Utilization figures for 1971-72 and 1972-73 are not available, nor is the utilization rate for children four years and older in 1977-78. Also, it is necessary to adjust the number of children treated slightly downwards, because some children treated as special cases were over the eligible age for the program. On the other hand, some children are treated by the salaried dentists of the International Grenfell Association but are not included in the children's program statistics, nor are children treated in the St. John's Children's Hospital counted. These latter exclusions would push the utilization figures in a conservative direction, offering some balance to inclusion of over-age children.*

With these data limitations in mind, it can be seen in Table 4.15 that both the absolute number of children treated (users) and the per cent of eligible children using the program have risen regularly each program year. For example, utilization increased from about 26 per cent in 1973-74 to about 51 per cent in 1981-82. The observed increases between 1973-74 and 1976-77, and again between 1977-78 and 1981-82, are particularly important as they are based on homogenous age groupings. As expected, the utilization among children four years old and over is higher and achieved 70 per cent in 1981-82.

Table 4.16 gives the service utilization data per treated child for the same time periods. Each child has received, on average, just over one examination per year. The number of radiographic films has risen each year to nearly 0.5 per child in 1981-82; however, since these films are usually taken two or more at a time, it appears that annual radiographic use is limited to no more than about 25 per cent of participating children. Prophylaxes and topical fluoride applications have increased each year and now approach nearly one per treated child. It can also be seen in Table 4.16 that the mean number of restorations per child has declined slightly over time largely due to a reduction in primary rather than permanent tooth restorations. The mean number of extractions per year has also declined over the period covered by the table but has stabilized at just over 0.5 extractions per child in the past three years.

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* These same problems apply to consideration of the service utilization and cost data.

Effective April 1, 1982, the allowed frequency of X-rays, prophylaxes, and topical fluorides was reduced from twice to once per year. The service data presented do not reflect this policy change. Since children had received less than one of each of these services each year prior to the change, the mean utilization of these services in the future may not change appreciably unless the earlier data represented many children who actually received two prophylaxes and topical fluorides per year while others received none. The 1982-83 service data will be particularly interesting in this respect.

The aggregate data in Table 4.16 do not permit assessment of any impact on utilization of those services subject to the $2.00 user fee imposed in 1978. Interpretation of the drop in both the number of fillings and, to a lesser extent, extractions per child after this date, as indicative of reduced demand due to the user fees, is complicated by the addition of two new age groups at this same time and by the difficulties posed by overlapping fiscal years.

Table 4.15
Newfoundland Children's Dental Care Program
Utilization 1970-82

Year[a,b]	Age Group Covered[c]	Number Eligible	Number Utilizing	Per cent Utilization	Per cent Utilization 4 Years and Over
1970	5–7	40 600	10 847	26.7	—
1973-74	0–10	138 000	35 882	26.0	39.6
1974-75	0–10	136 700	36 985	26.8	40.9
1975-76	0–10	135 300	38 779	28.7	42.7
1976-77	0–10	133 100	45 808	34.4	51.3
1977-78	0–12	157 600	58 847	37.3	?
1978-79	0–12	153 600	69 757	42.2	60.0
1979-80	0–12	149 400	65 634	43.9	61.6
1980-81	0–12	146 500	67 962	46.4	64.7
1981-82	0–12	142 700	72 697	50.9	70.2

a. The program started in 1950 but appropriate data are not available prior to 1970. This also applies to 1970-71, 1971-72, and 1972-73.
b. Beginning 1980-81, program year is 1 April to 31 March. Prior to that, operating year was 1 September to 31 August, except for 1970.
c. In fact, an estimated 3 to 5 per cent of children treated were older than age of eligibility indicated. These were children of families on social assistance and some other special cases. Their presence has little impact on the statistics in Table 4.16

Table 4.16
Newfoundland Children's Dental Care Program
Mean Number of Services Per Treated Child, 1970-82

Year[a,b]	Age Group[c]	Examinations	X-rays	Prevention	Restorations	Extractions	Other[d]
1970	5–7	0.60	0.14	0.32	1.91	1.53	?
1973-74	4–10	?	0.12	0.87	1.27	0.81	0.01
1974-75	4–10	?	0.17	1.09	1.47	0.88	0.02
1975-76	4–10	?	0.17	1.25	1.61	0.73	0.02
1976-77	4–10	1.10	0.17	1.34	1.44	0.81	0.02
1977-78	4–12	1.10	0.29	1.40	1.53	0.67	0.02
1978-79	4–12	1.10	0.39	1.61	1.42	0.62	0.02
1979-80	4–12	1.20	0.38	1.77	1.37	0.58	0.02
1980-81	4–12	1.18	0.39	1.76	1.31	0.55	0.02
1981-82	4–12	1.17	0.47	1.83	1.27	0.56	0.02

a. The program started in 1950 but appropriate data are not available prior to 1970. This also applies to 1970-71, 1971-72, and 1972-73.
b. Beginning 1980-81, program year is 1 April to 31 March. Prior to that, operating year was 1 September to 31 August, except for 1970.
c. In fact, an estimated 3 to 5 per cent of children treated were older than age of eligibility indicated. These were children of families on social assistance and some other special cases. Their presence has little impact on the statistics in Table 4.17.
d. Other services include endodontics, crowns, dentures, bit planes, etc.

4.6.6 Expenditures

The total expenditures for dentists' services in 19 program years are found in Table 4.17 along with the estimated mean expenditure per user for the 1973 to 1982 periods.* The administrative costs for the children's program are not separately determined in the Division of Dental Services budget which includes, among other things, the dental bursary, dentist recruitment and general preventive or public health program costs.

The growth of the Newfoundland Children's Dental Program is evident from the cost figures presented in Table 4.17. Using the eligible age range as a guide, it is convenient to discuss the cost data from 1973-74 to the present in three stages. In the first stage, from 1973-74 to 1976-77, children aged four to ten years were eligible for the program. The total expenditures for this three-year period increased by 119 per cent while the number of children treated and the cost per child grew by 27 per cent and 72 per cent, respectively. In the latter half of fiscal year 1977-78, children aged 11 and 12 years became eligible for treatment. This was a transitional year. The expenditures one year later in 1978-79 – the beginning of another three-year stage in which children aged four to 12 years were eligible–increased by just over one million dollars. This apparently represented the full impact of the new utilization by those children newly eligible in the transition year, 1977-78. Between 1978-79 and 1981-82, total expenditures increased by 58 per cent while the number of children treated and the cost per child grew by 12 per cent and 41 per cent respectively.

Over the eight-year period from 1973-74 to 1981-82, total expenditures and expenditures per child are estimated to have increased by 473 per cent and 191 per cent respectively. It is emphasized that nearly twice as many children (97 per cent more) were treated in latter years than in the first. In terms of constant (1974) dollars, the Newfoundland expenditures increased modestly. Indeed, on a per user basis, the expenditure for care held steady from 1975-76 onward. This differs from the experience in some other provinces.

Table 4.17
Newfoundland Children's Dental Care Program
Expenditures in Nominal and Constant (1974) Dollars, 1973-81

	Total Expenditures		Expenditure Per User	
Year[a]	Nominal	Constant	Nominal	Constant
1973-74	$1 000 000	$ —	$26.38	$ —
1974-75	1 100 000	1 100 000[b]	28.22	28.22
1975-76	1 800 000	1 604 530	44.10	39.31
1976-77	2 190 000	1 830 243	45.42	37.96
1977-78	2 600 000	2 026 092	42.86	33.40
1978-79[c,d]	3 632 000	2 635 367	54.41	39.48
1979-80	3 850 000	2 516 512	56.90	37.19
1980-81	4 600 000	2 672 514	65.65	38.14
1981-82	5 732 771	2 939 995	76.65	39.31

a. Expenditures for 1957-58 have been estimated at $35 000, rising to $136 000 in 1966-67. No expenditure data are available for the period 1967-73.
b. Expenditures deflated by St. John's Consumer Price Index, September 1974 = 100.
c. Children 11 and 12 years old became eligible for the plan.
d. A user fee of $2 per item of service was instituted for all but diagnostic and preventive services.

4.7 Nova Scotia Children's Dental Care Plan

A universal children's dental care plan for the province of Nova Scotia was introduced by the provincial government on July 1, 1974. Nova Scotia thus joined Saskatchewan and Quebec in introducing universal children's dental care in that year. Nova Scotia's program consisted of a publicly-funded, third-party reimbursement scheme along the line of those operated by Newfoundland and Quebec, rather than a direct service program such as was implemented in Prince Edward Island and Saskatchewan.

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* These costs include the dental fees paid out for social assistance and special cases older than the maximum age eligible for the children's program. However, it is estimated that from 95 per cent to 97 per cent of the total users were within the correct age range.

Prior to the introduction of the dental care program in Nova Scotia, the province operated an active dental public health service. This program, which was primarily aimed at providing dental services for children in rural, under-serviced areas, continues to operate today. It provides preventive and some treatment services using a staff of salaried dental hygienists and dentists. In addition, the dental division of the Department of Health continues to offer a bursary program to attract dentists to under-serviced areas. It also offers subsidies to local communities wishing to fluoridate their water supplies. As of 1981, Nova Scotia's population was 847 000 people. Of those on piped water supplies, approximately 70 per cent were consuming fluoridated water. This represents 40 per cent of the total population of the province.

4.7.1 Eligibility

When the Children's Dental Care Program went into effect in 1974, all children born on or after January 1, 1967 became eligible for the publicly-funded dental services. The program was designed to expand incrementally on a year-by-year basis with no upper age limit being announced at that time. As Table 4.18 shows, the first full year of operation saw children eight years of age and under being covered, making a total of 108 910 children eligible for dental treatment. Since that time, the number of eligible children has grown to 194 900 for fiscal year 1981-82. In 1982, the government announced that eligibility would cease for children on the last day of the month in which their sixteenth birthday falls.

Table 4.18
Nova Scotia Children's Dental Care Plan
Children Eligible, 1974-82

Year[a]	Age Group Covered[b]	Number Eligible[c]
1974-75	0–8	108 910
1975-76	0–9	122 195
1976-77	0–10	135 800
1977-78	0–11	148 380
1978-79	0–12	157 900
1979-80	0–13	170 700
1980-81	0–14	183 000
1981-82	0–15	194 900

a. The period covered is actually the year of program operation. Initially, this was 1 July to 20 June of the following year. More recently, this has become 1 April to 31 March of the following year.
b. Children eligible are those born on or after 1 January 1967.
c. Estimated as of 31 December of each calendar year.

4.7.2 Dental Services Covered

The dental plan began by offering a full range of basic dental services to eligible children. Diagnostic services covered included twice-a-year routine dental examinations, full mouth X-ray surveys, caries activity tests, study models, and a variety of other diagnostic procedures. Preventive services included twice-a-year dental prophylaxis and topical fluoride application, oral hygiene instruction, and dietary counselling. Fissure sealants were not covered. Among restorative services, most necessary types of fillings were covered by the plan. Stainless steel crowns for deciduous teeth and precious metal crowns for permanent teeth were covered as well. Most forms of endodontic procedures were covered for both the decidous and permanent dentitions. The usual oral surgery procedures including extractions, removal of roots, incision and drainage of infections, and other types of oral surgery were insured. In an unusual step for programs of this type, the Nova Scotia plan provided for the coverage of a variety of preventive orthodontic procedures. These included space maintainers, space regainers, cross-bite correction appliances, and habit-inhibiting appliances for thumb sucking or tongue thrusting. Major orthodontic services, however, were not covered.

In 1976, the benefits structure of the children's dental plan was modified with respect to the coverage of certain procedures. For example, the frequency of complete dental examinations was reduced from twice per year to once per year; the frequency of routine prophylaxis was limited to once per year; the application of topical fluorides was covered only when done in conjunction with a prophylaxis, thereby also reducing its frequency to once a year; oral hygiene instruction was discontinued as a benefit; a maximum annual allowance for X-rays was imposed, and pulp capping was discontinued as a separate benefit and was now deemed to be included in the fee for the restoration of the tooth. In November of 1982, a further restriction was imposed on the provision of preventive orthodontic services. In essence, no preventive orthodontic services other than space maintainers continued to be covered. Throughout, the Nova Scotia children's dental care program has continued the practice of paying the full cost of laboratory procedures for the fabrication of dental appliances.

4.7.3 Providers and Service Settings

The children's dental plan is a third-party payment program relying on private practice professionals who are paid on a fee-for-service basis. Hence, the providers of care in this program are the dentists of Nova Scotia. All Nova Scotia dentists are eligible to claim payments from Nova Scotia Medical Services Insurance (MSI), the non-profit health insurance plan for the province. During fiscal year 1981-82, 300 dentists performed insured services on behalf of Nova Scotia children.

4.7.4 Administration

The children's dental plan is administered by Maritime Medical Care Inc., which was formed in 1948 as a private, non-profit, pre-payment health insurance plan. In 1967, when medical services insurance was being planned, the provincial government negotiated a contract with the Maritime Medical Care Inc. (MMCI) to operate the medical program under the name of Nova Scotia Medical Services Insurance. When the dental plan was introduced in 1974, this agency was given the responsibility of administering the program. Funding for the dental care program is provided by the provincial government, which allocates the needed monies from general revenues. Dentists are paid on a fee-for-service basis. Prior to July 1, 1984 they could charge fees in excess of the scheduled amount provided that the patient was notified in advance in writing and agreed to the extra charge, and provided that MSI was notified of the extra charge when the claim was submitted. Consequent on the passage of the Canada Health Act in April 1984, which required the federal government to reduce financial contributions to provinces allowing extra-billing by the dollar value of the extra-billing, the Nova Scotia Health Services and Insurance Act was amended to eliminate the practice of extra-billing.

The fees for the dental services have been established between the Health Services and Insurance Commission (HSIC) and the Nova Scotia Dental Association.* Past practice has been to negotiate an increase in the fees on an annual basis. As is the case with most of the existing publicly-funded medical care and dental care programs across the country, there is a certain arbitrary element in negotiations between program administration and dental associations. Thus, the benefits changes implemented in 1976, as described earlier in this section, resulted from a unilateral decision on the part of HSIC to reduce expenditures. Within 18 months of starting the program, the HSIC and the government decided to reduce expenditures by terminating coverage for the oldest age group at the beginning of the 1976-77 fiscal year. The Nova Scotia Dental Association, however, was not in favour of that decision. Consequently, the HSIC Tariff Committee and Maritime Medical Care consulted with the Nova Scotia Dental Association Tariff Committee in identifying benefit reductions which could be implemented to achieve the desired reduction in expenditure without changing the eligibility criteria. Nevertheless, it is difficult to believe that the elimination of most of the preventive orthodontic benefits was suggested or even supported by the Nova Scotia Dental Association.

The workings of the Children's Dental Plan are monitored in two ways. First, a Dental Claims Evaluation Committee, comprising four registered dentists nominated by the Nova Scotia Dental Association as well as staff from Maritime Medical Care Inc., monitors all questionable claims that are presented for payment. Second, a Dental Review Committee oversees the general operation of the dental health plan and advises the HSIC on any matters that may affect the quality and nature of insured dental services provided by MSI. This committee consists of six dentists appointed by the Nova Scotia Dental Association, and reflects the interests of both specialists and general practitioners as well as of differing regions of the province. One particular task of the Dental Review Committee is to review the patient treatment profiles of dentists with a view to identifying aberrant patterns of care and making recommendations with respect to them. The Dental Review Committee may also commission special evaluation studies by the Research and Statistics Division of Maritime Medical Care Inc. One such study, covering the first four years of operation of the dental plan, has already been prepared.[15]

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* Specialists fees have been set higher than general practitioner fees for performance of the identical dental procedure.

4.7.5 Utilization

Standard utilization rates for the children's dental plan are given in Table 4.19. It will be seen that the utilization rate has grown from 27 per cent in 1974, to 52 per cent in 1981-82. Of course, this near doubling of the utilization rate reflects in part the progressive aging of the children covered for the publicly-funded dental services. Nevertheless, the overall utilization rate will be artificially low because very young children who make little use of the dental plan are included in the denominator. To overcome this problem the MSI has calculated utilization rates for children three years of age and over. These figures are shown in the last column of Table 4.19. As would be expected, these user rates are considerably higher. They also show an increase in utilization from 1974 to 1981. However, it must be recognized that the mean age of the group eligible was increasing each year; this undoubtedly had some influence on the rising utilization rates.

Table 4.19
Nova Scotia Children's Dental Care Plan
Utilization Experience, 1974-82

Year[a]	Age Group Covered[b]	Number Eligible[c]	Number Utilizing	Per cent Utilization	Per cent Utilization 3 yrs. +
1974-75	0–8	108 910	29 414	27.0	39.8
1975-76	0–9	122 195	40 083	38.8	45.6
1976-77	0–10	135 800	48 924	36.0	48.3
1977-78	0–11	148 380	59 646	40.2	52.2
1978-79	0–12	157 900	68 600	43.5	55.7
1979-80	0–13	170 700	78 549	46.1	57.5
1980-81	0–14	183 000	88 400	48.3	59.1
1981-82	0–15	194 900	101 408	52.0	62.7

a. Data for the years 1974-75 through 1977-78 cover the period 1 July to 20 June. For the years 1978-79 through 1981-82, the period covered was 1 April to 31 March.
b. Children eligible are those born on or after 1 January 1967.
c. Estimated as of 31 December of each calendar year. Period covered was 1 April to 31 March.

There is important evidence that annual utilization rates have increased when holding age constant. The data for this finding are in Table 4.20 and are based on tracking the utilization rates for the five cohorts of children commencing with the 1976-77 program year. If one compares the utilization rates among cohorts of children of similar age (reading Table 4.20 on the diagonals), then it is evident that the utilization of dental services has increased in this sense as well. For example, of the cohort of children who were age 13 in 1981-82, 57.6 per cent used program services in 1977-78 when they were age 9 compared to 68.7 per cent utilization by 9-year-olds in 1981-82. Thus as the plan itself ages, utilization goes up, even controlling for age of the eligible population, because more people know of the plan and have become familiar with how to use it.

The Nova Scotia data also give rise to one disconcerting finding; namely, that there appears to be a "hard core" of non-users covered by the program. This finding derives from determining what proportion of eligible children had never made even a single use of the program during the first four years of operation. The data are displayed in Table 4.21. The figures indicate that a surprisingly high percentage of children, between 26 and 29 per cent, made no use of the program whatsoever over a four-year period. The explanations for this situation could include lack of geographic access to a dentist, lower appreciation for dental health, and/or perhaps fear of dental treatment. In any event, it is important to learn more about this phenomenon and to determine whether it extends over longer periods than four years. It may also be useful to undertake a study of dental health status comparing regular users with non-users.

Table 4.20
Nova Scotia Children's Dental Care Plan
Utilization Rates (Per Cent) by Program Year
In Three Cohorts of Children[a]

Year of Program	Children's Age 1981-82				
	13 yrs	12 yrs	11 yrs	10 yrs	9 yrs
1976-77	53.4	56.6	58.8	53.2	42.8
1977-78	57.6	56.0	56.7	55.5	51.8
1978-79	59.7	60.3	62.4	61.0	59.4
1979-1980	61.6	60.0	62.8	63.6	64.1
1980-81	60.8	62.1	63.3	65.3	66.6
1981-82	62.3	65.0	65.9	67.4	68.7

a. Data from Nova Scotia Medical Services Insurance Annual Reports 1976-77 through 1981-82.

Table 4.21
Nova Scotia Children's Dental Care Plan
Per Cent of Non-Users Among Three Oldest Cohorts
During First Four Years of Program
1974-82[a]

Year of Birth	Number Eligible	Number Non-Users	Per cent Non-Users
1967	16 295	4 709	28.9
1968	15 360	3 959	25.8
1969	15 615	4 193	26.9

a. Data from Children's Dental Plan Four Year Statistical Review. Maritime Medical Care Inc. Research and Statistics. December 1979, p. 8.

4.7.6 Expenditures

The expenditures for the Nova Scotia Children's Dental Care Plan are displayed in Table 4.22. It can be seen that the program expense has grown from $1.5 million in 1974-75 to over $8.3 million in fiscal year 1981-82. Since the expenditures would be expected to grow with the increase in program coverage, the table also displays expenditures per eligible child and per user. During the first two years, when the utilization rate was relatively low, the per user costs were three times the cost per eligible child. This situation changed so that by 1981-82, the ratio of per user to per eligible expenditures was down to two. With a per user expenditure of $82.17, the service cost per patient is no higher than in most other children's dental care programs in Canada. The above figures exclude administrative expenditures which were estimated at approximately three per cent for 1981-82.

The composition of the overall expenditures can be broken down by service categories. Table 4.23 provides such a table and displays the distribution of services, expenditures, and services per user for children three years old and over. Looking just at the expenditures column reveals that approximately 34 per cent of total expenditures were allocated to diagnostic and preventive care with another 14 per cent going to preventive orthodontic care. As is a common experience in other programs, approximately 40 per cent of the allocated expenditure goes to restorative services. Endodontic and oral surgery services absorb the balance of the expenditures. These figures may be compared with the distribution of actual services and the mean services per user which are both shown in the same table.

One element that has not been examined with the foregoing expenditure data is the effect of inflation. Table 4.24 attempts to do this. The table gives, for each fiscal year, the nominal and constant dollar expenditures incurred by the dental program. The constant dollar expenditures were deflated by using the Halifax consumer price index for

Table 4.22
Nova Scotia Children's Dental Care Plan
Expenditures, 1974-82

Year	Age Group Covered	Expenditures Per Eligible	Expenditures Per User	Total Expenditures
1974	0–8	$14.23	$53.24	$1 566 039
1975	0–9	17.50	54.10	2 168 384
1976	0–10	17.54	49.46	2 419 573
1977	0–11	21.81	55.15	3 289 508
1978	0–12	25.45	54.59	4 019 320
1979	0–13	30.05	65.24	5 128 747
1980	0–14	35.30	78.09	6 460 880
1981	0–15	42.75	82.17	8 332 823

Table 4.23
Nova Scotia Children's Dental Care Plan
Distribution of Services, Expenditures and Services Per User
for Three-year-olds and Over, 1981-82

Service Category	Per Cent Services	Per Cent Expenditures	Mea Servi Per U
Diagnostic	33.9	20.6	1.6
Preventive	16.8	13.5	0.8
Prev. Ortho.	2.1	14.3	0.1
Restorative	37.4	40.5	1.8
Endodontics	1.8	3.7	0.0
Oral Surgery	8.1	7.3	0.4
Other[a]	0.0	0.1	0.0
Total	100.1[b]	100.0	4.9

[a] Includes a trivial number of periodontic and prosthodontic services.
[b] Rounding error.

September; setting 1974 equal to 100. Such an analysis reveals that the expenditures for dental services have ri more modestly than the nominal dollar figure would indicate. To remove further the effect of the expanded progr coverage during these years, the table displays both nominal and constant dollar expenditures per user. This anal shows that the expenditures per user have actually declined by 19 per cent from 1974-1981 when the constant do method is used. It should be recognized that this procedure does not take into account the fact that the mix of de services required has altered with the aging of the population being covered. If this were considered, the obser decrease in constant dollar expenditures per user would be even greater. The reason for this decline is not difficu find. If one examines the fee schedules in force for each year of operation, it is indeed the case that the fees h steadily increased. The first three columns in Table 4.25 make this clear. Taking the first category, examinations, fee for this procedure has increased from $14 in 1974 to $20.35 in 1982. However, calculated in constant 1 dollars, the 1982 fee for examinations works out to only $10.67. When treated in this way, all but one service sho in the table has seen its monetary value decreased relative to 1974. Undoubtedly, it is this decrease which resulted in the overall decline in the per patient constant dollar expenditure.

Table 4.24
Nova Scotia Children's Dental Care Plan
Nominal and Constant Dollar Expenditure[a]

Year	Total Expenditures		Expenditures Per User	
	Nominal	Constant	Nominal	Constant
1974	$1 566 039	$1 566 039	$53.24	$53.24
1975	2 168 384	1 980 383	54.10	49.41
1976	2 419 573	2 050 122	49.46	41.91
1977	3 289 508	2 569 993	55.15	43.09
1978	4 019 320	2 926 781	58.59	42.66
1979	5 128 747	3 341 212	65.29	42.53
1980	6 460 880	3 791 725	73.09	42.89
1981	8 332 823	4 370 337	82.17	43.10

a. Expenditures deflated by Halifax Consumer Price Index, September 1974 = 100.

Table 4.25
Nova Scotia Children's Dental Care Plan
Fees by Year and Selected Treatment Procedures

Treatment Procedures	Service Fee in Dollars			
	1974	1977	1982	1982 In Constant (1974) Dollars
Examination	14.00	16.63	20.35	10.67
X-Rays[a]	4.00/2.00	4.75/2.38	6.30/2.00	3.30/1.05
Prophylaxis	9.00	8.32	14.20	7.34
Topical Fluoride	3.00	5.94	2.95	1.55
Amalgam	13.00	18.53	25.00	13.11
Pulpotomy	19.00	22.57	23.90	12.53
Extraction[b]	11.00/8.00	13.07/9.50	18.40/10.25	9.65/5.38

a. First figure is for first X-ray film taken, second for all subsequent periapicals or bitewings taken at that appointment.
b. First figure is for first tooth extracted in a quadrant, second for all other teeth extracted in same quadrant at the same appointment.

4.7.7 Special Programs

Since the launching of the Children's Dental Plan in 1974, three other supplementary dental programs have been added. The first of these was the broadening of the eligibility to all students registered at the Sir Frederick Fraser School for the Blind in 1976. While children in this school who met the age criteria were always eligible, the program was now extended to blind children who had previously been over age. The benefits are the same as provided by the children's plan.

In January 1977, a dental program for the severely mentally retarded became effective. It provides for these patients to be covered for dental services as long as they have been registered with the Health Services Insurance Commission, and requires that this care be provided under general anaesthesia in hospital. The Commission requests that a treatment plan be submitted prior to the treatment.

The third program involved the extension of dental coverage to cleft palate cases, effective April 1977. Eligible for this program were all Nova Scotia residents who registered with the Cleft Palate Unit at Izaak Walton Killam Hospital for Children. The program covers all necessary dental treatment required by these patients and therefore covers services beyond those administered under the Children's Dental Plan. When extensive services are likely to be required, a treatment plan must be submitted to the Health Services Insurance Commission before care is given. Up to the present, age was not a factor in determining eligibility; however, this will change on October 1, 1984, when only persons under 23 years of age will remain eligible for coverage under the program.

Data on program experience characterizing these three plan extensions are not very extensive. Table 4.26 attempts to provide just a few. It is immediately apparent that the three plans are relatively small, incurring a total expenditure of less than $140 000 in 1981-82. Nevertheless, to the individuals actually involved, these programs are very important. Clearly, the cleft palate group represents the largest number of users and 212 of these were not eligible for services under the eligibility criteria of the Children's Dental Plan by virtue of age.

Table 4.26
Nova Scotia Children's Dental Care Plan
Dental Program for Special Patients
Eligibility, Utilization, and Expenditures, 1981-82

Group	Number Eligible	Users	Per Cent Utilization	Total Expenditures
Cleft Palate	596[a,b]	383	64.3	125 158[c]
Mental Retardation	?	65[d]	?	11 435
School for the Blind	?	6[e]	?	678

a. These are the total number of cleft palate subjects of any age registered with the Nova Scotia Health Services Insurance Commission. Beginning in October 1984, benefits to this category of patients will be limited to those under 23 years of age.
b. Of these, 212 were not covered by the Children's Denticare Program by virtue of being born prior to 1967.
c. Expenditure for those not covered by the Children's Program. An additional $30 787 was spent by the Children's Program on behalf of those born after 1 January 1967.
d. Number eligible not known. Was 278 registered persons, July 1983. Insured treatment must be carried out in a hospital.
e. These users were all born prior to 1967.

Finally, it should not be overlooked that the Province of Nova Scotia continues to operate a dental public health program through the Nova Scotia Department of Health. This program is aimed mainly at rural, dentally under-serviced areas, and focuses largely on children in the school system. There are five full-time dentists and one part-time dentist, five dental assistants, and 24 dental hygienists on staff. For fiscal year 1982-83, the estimated operating budget is $850 000. Dentists provide treatment services consisting of various diagnostic procedures, restorative care, referral and consultations, and extractions. The dental hygienists complement and extend this service by offering dental prophylaxis, fluoride treatment, dental caries screening, and a variety of public dental health education services. Recent service data are not available for this program. During 1978, the dental hygienists saw 30 724 children while the dentists provided 14 133 fillings, 2 594 extractions, and 459 other services.

The Department of Health maintains its community dental incentive grant program, which on average provides ten to fifteen thousand dollars to communities designated as under-serviced areas, to help them secure the services of a dentist. In addition, interested communities may obtain a grant of $7 500 towards the purchase and installation of fluoridation equipment. In recent years, Nova Scotia has had a fair amount of success in attracting new dentists to under-serviced communities. Undoubtedly, the effect of the children's dental care plan and the dental incentive grant program have worked together to bring about this trend.

4.8 Ontario Dental Care Program

Ontario, Canada's most populated province, does not operate a universal dental care program. Instead, the province has relied on a three-pronged strategy for attaining its dental health care objectives. First, Ontario has been more vigorous than many provinces in implementing water fluoridation systems throughout its communities. A large province with many urban centres, Ontario has been able to implement fluoridation to the point where 72 per cent of its population on public water systems benefits from this most effective dental public health measure. Second, the province has provided financial support through its 43 health units to enable these to organize either prevention or preventive and treatment dental services. Third, the province has undoubtedly benefited from the rapid growth of dental insurance throughout Ontario. In part, this has been possible because Ontario possesses a large industrial base, which is relatively easily organized for the implementation of group dental insurance plans as a fringe benefit of employment.

Since there is no province-wide treatment program to describe, we will attempt to aggregate the dental health unit programs and to describe them under the headings that have been employed in other parts of this report. The reader should be aware that this may suggest a greater degree of integration than actually existed in 1981-82. However, legislation was proposed in 1983-84 to establish a minimum service level for the preventive dental programs in Ontario's 43 health units. Since there are a number of significant dental programs operating outside the sphere of the health units, we will describe these under section 4.8.7 entitled "Special Programs".

4.8.1 Eligibility

With respect to the ten health units (out of 43) which operate a dental treatment program, eligibility tends to be confined to school-children. However, in two of the ten programs, persons of all ages may receive dental treatment services from the health unit. Five of the ten health units use a means test in defining the eligible population. One health unit provides treatment only to rural, under-serviced areas. A further three health units have nothing more than a residency requirement. None of the ten programs provide information on the size of the total eligible population. However, data gathered by the Public Health Branch of the Ontario Ministry of Health indicates that in 1981-82 perhaps 75 000 individuals requested dental treatment from the ten health units offering the service.

With respect to the preventive programs in 1981-82, the 43 health units identified 3 979 elementary schools as being targeted for dental prevention activities. In most instances, the school-based preventive activities were aimed at children from kindergarden through grade eight. The preventive programs were also aimed at nursery and day care centres, pre-school groups, centres for the handicapped and for the geriatric population. The total number of individuals eligible was not estimated.

4.8.2. Dental Services Covered

Each of the ten health units with treatment programs elaborates its own policy with respect to the range of services it will provide. However, all ten health units provide a full range of diagnostic services (including X-rays), basic restorative procedures including stainless steel crowns, endodontic care, and emergency services and minor oral surgery treatment as necessary. Interestingly enough, nine out of ten health units provide space-maintainers and three of the health units indicate that they provide other orthodontic services.

The dental health units' preventive programs provide a more or less traditional range of services. These include inspection and referral, oral hygiene instruction, classroom dental health education, fluoride mouthrinse programs, a few fluoride supplement programs, and chairside topical fluoride treatments. Not all health units will offer all of these services, and those that do may not provide them for all school-children under the responsibility of the health unit.

4.8.3 Providers and Service Settings

The dental treatment provided by the health units is carried out in either school-based dental clinics, clinics in health unit offices, or mobile dental clinics. All ten health units employ full-time salaried dentists to provide clinical treatment. In addition, dental assistants and clerical personnel are employed. Some of the larger health units also rely heavily on part-time clinical staff employed on a sessional basis. This is particularly true in the City of Toronto. In general, the degree of reliance on full-time dentists versus part-time or sessional dentists varies considerably among the ten health units. Unfortunately, the available data do not permit an accurate determination of the full-time equivalent dentists involved with each of the treatment programs.

The preventive programs are operated largely by the dental hygiene and dental health education staff in each of the health units. Generally working under the supervision of a dental director and assisted by a small clerical staff, the dental hygienists and dental health educators provide the backbone of most of the preventive dental programs offered through the Ontario health units. Again, calculation of full-time equivalent personnel is not possible given the available data.

4.8.4 Administration

The dental health programs operated by health units are under the direction of a dental officer, who in turn reports to the Medical Officer of Health. Insofar as the dental programs are school-based, a considerable amount of administrative effort is devoted to coordination and cooperation with school officials, making various travel arrangements, the acquisition and distribution of supplies, and the requirement to maintain up-to-date activity reports. Personnel administration and the maintenance of professional relations represents a significant portion of the dental officer's work. Clearly, the burden of administrative work will vary, depending on the size of the dental program, whether it offers preventive or preventive and treatment services, and the relative mix of full-time to part-time staff.

The financing of the health unit dental programs is shared between the provincial government and the local community. Thus, for most health units, the Ministry of Health provides 75 per cent of the health units' budget, with 25 per cent being obtained through local taxes. The six health units constituting metropolitan Toronto are on a different funding basis, as the Ministry of Health only provides 40 per cent of the health unit budget, with 60 per cent of funding being derived through local taxes. There are some small additional modifications to this funding formula depending on the mix of treatment and preventive services provided by the health unit. In general, preventive dental services receive 75 per cent of the normal allocation made by the Ministry of Health to the local health unit.

4.8.5 Utilization

Utilization of services is difficult to estimate for the Ontario health units' dental programs. However, data collected by the Ontario Ministry of Health indicate that at least 66 022 persons received dental treatment during fiscal year 1981-82. On the prevention side, the province's health units served a total of 1 153 262 clients. This included 27 842 nursery and day care children, 28 174 pre-schoolers, 1 083 450 school-children, 5 866 handicapped persons, and 7 930 adults of all ages. All of these figures are subject to the vagaries of data collection in a decentralized system. Hence, they should be interpreted as rather approximate figures generated within a service-oriented system.

4.8.6 Expenditures

For fiscal year 1981-82, aggregate expenditures for dental treatment in the ten health units totalled $4 216 009. This translates to an approximate allocation of $63.86 for each individual treated. The preventive services by all health units totalled $5 341 539. Dividing this figure by the total number of clients served comes to $4.63 per person in fiscal year 1981-82. In essence, the dental operating budgets for the health units came to $9 557 548. It is possible, however, that this figure does not represent certain capital expenditures, depreciation costs, physical plant and maintenance costs, stationery costs, and sundry overhead expenditures.

4.8.7 Special Programs

There are eleven additional dental programs supported with public funds by the Government of Ontario. Six of these are under the Ministry of Health. Four of these six Ministry of Health programs allot funds to augment the supply of dental services in under-serviced areas of the province. This is carried out using four distinct mechanisms. The first of these is what is known as the dental coach program. This comprises a fleet of ten dental coaches which are 18 metre (60-foot) mobile homes into which have been installed a dental clinic, as well as accommodations for a husband and wife dental team. Nine of these coaches are at present staffed. The coaches visit areas of the province in which there is a shortage of dental services. On the average, each coach can provide all preventive and basic treatment services for 500-600 children per year. The 1982-83 budget for the dental coaches is reported to be approximately $730 000.

The second activity supported by the Ministry of Health is the dentist placement program. This is a system of incentive grants to encourage the location of dentists into rural, under-serviced areas. The program has been fairly successful, and in 1982-83 its budget was $228 000.

A third activity, which is actually funded by the Ministry of Northern Affairs but administered by the Ministry of Health, involves undergraduate bursaries to dental students in return for their practising in designated under-serviced areas upon graduation. During fiscal 1982-83, the budget allocation for this activity was $25 000.

The fourth program activity is the special grant made to the Northwestern Health Unit children's dental treatment program. Using this money, the health unit has been able to buy portable dental equipment and has been able to hire dental staff in order to provide dental care to areas of high dental need in the Kenora-Rainy River district. The budget allocation for fiscal year 1982-83 was $160 000. We have included this allocation with the treatment budgets in the earlier section describing the dental care activities of the health units.

The Ministry of Health also operates two additional programs which are not related to under-serviced areas. The first of these involves the provision of dental treatment in "homes for special care". These homes house approximately 7 000 patients, mostly adults, most of whom have been discharged from psychiatric hospitals. All dental treatment for these individuals is provided through private practice dentists, who are reimbursed on a fee-for-service basis at the level of the preceding year's Ontario Dental Association fee schedule. In 1980, this program operated at a cost of $172 000, but for fiscal year 1982-83, the cost is estimated to be approximately $250 000.

The second of these Ministry of Health special programs provides the financial support to operate a mobile dental clinic to service disabled children. This program started in July 1983, and is being funded at the level of $44 000 during its first year of operation.

Outside of the Ministry of Health, the Government of Ontario also provides for dental services in correctional institutions (six full-time dentists), psychiatric hospitals (ten full-time dentists), and retardation facilities (16 full-time and eight part-time dentists). Assuming that to support one dentist, a dental assistant, supplies, equipment, and maintenance costs $80 000 per year, and that the eight part-time dentists together are paid $50 000 per year, the total dental care expenditure for these three operations is approximately $2 610 000.

In addition, through the Ministry of Community and Social Services, the Government of Ontario provides dental care for persons undergoing "vocational rehabilitation" and for social assistance recipients. There are about 2 000 persons participating in the vocational rehabilitation program, most of them teenagers and young adults. These persons may receive all dental services required "to make them employable". The program also operates through private practice dentistry and reimburses practitioners at 90 per cent of the current ODA fee schedule. The 1982-83 cost for this program has been estimated at approximately $250 000. The services for social assistance recipients are described in section 6.8 of this report.

To develop a sense of the total public expenditure for dental care in Ontario it is useful to sum up the various expenditures that have been outlined in this section. In order to bring the health unit expenditures to the 1982-83 fiscal year, these should be increased by six per cent. If this is done, the reported public expenditure for dental care in public programs comes to $14 268 000. The reader should be cautioned that these are very approximate figures.

4.9 Prince Edward Island Children's Dental Care Program

The Children's Dental Care Program (CDCP) of Prince Edward Island began in October 1971 by enrolling six-year-old children. The long-term goal of the program is to assist children throughout the province to achieve and maintain a high level of dental health. The short-term objective of the program was to ensure that all children in specified, phased-in age groups received early and regular dental care. From 1971 through to 1977, most of the dental care to eligible children was rendered by teams of salaried dental personnel working in mobile and stationary dental clinics operated by the Department of Health and Social Services. These teams blended the traditional activities of the dentist with those of dental hygienists newly educated in restorative dental procedures at Dalhousie University's Faculty of Dentistry. The "expanded-duty" dental hygienists were able to place and carve the amalgam filling material in teeth that had been anaesthetized and prepared for filling by dentists. The third type of dental personnel in the team, the certified dental assistant, was educated to clean, polish and apply topical fluoride solutions to teeth, among other duties. The feasibility of providing care in this manner had previously been demonstrated in an extensive dental manpower study supported by research funds from the Department of National Health and Welfare and conducted in Prince Edward Island from 1969 to 1972.[16]

Although the situation has ameliorated considerably in recent times, there had been for many years a chronic shortage of dentists in Prince Idward Island. Consistent with this shortage and perhaps other socio-economic and attitudinal factors believed to be associated with the demand for dental care, it was estimated that just 20 per cent of the province's children visited a dentist annually, yet their need for dental care was very high. For many children, the high prevalence of disease, combined with their low utilization of dental services, meant that large fillings and/or extractions of teeth often were required when care was eventually sought. It was believed that there was little hope of improvement using solely the existing over-burdened private dental system, neither could the minimal school dental service existing prior to the 1970s cope with the treatment backlog. Support for the development of a new delivery system to augment private dental practice came from the Department of Health and voluntary organizations such as the Women's Institute. As well, the PEI Dental Association in discussions in 1968-69 had favoured the implementation of such a program.

It was hoped at the outset that dental care under the plan would be rendered jointly by the private and public sectors, but concerns about fee levels, cost control, and quality assurance delayed this goal until September 1977.

The success of the Prince Edward Island Dental Manpower demonstration research project and the mounting interest throughout North America in new, direct care roles for dental health personnel besides the dentist, led somewhat naturally to a program with clinic-based salaried teams. It is an ironic postscript to this story that reductions in the incidence of dental decay since the program began have resulted in a decrease in the number of dental hygienists involved in restorative dentistry in the CDCP clinics. At present, the hygienists do little restorative dentistry since the dentist/dental hygienist team concept is less efficient without so-called "quadrant" dentistry involving multiple restorations.

4.9.1 Eligibility

Eligibility for the CDCP is based on age. Since 1971, when children aged six years were covered, one or two additional age cohorts have been phased-in each year, as Table 4.27 demonstrates. Until 1980-81, all children residing in PEI and born on or after January 1, 1965, were eligible provided they had reached their third birthday. Due to financial restraints, three-year-old children were removed from the program on June 1, 1981 so that for most of the 1981-82 fiscal year and through to April 18, 1983, children ages four to 16 years were eligible. On April 19, 1983, cuts announced in the government's budget necessitated a further reduction in coverage so that only children four through 12 years of age were eligible, as well as children who had begun treatment in the preventive orthodontic program before age 13 (their coverage lasts until the treatment is completed).

Table 4.27
Prince Edward Island Children's Dental Care Program
Children Eligible, 1974-82

Year[a]	Age Group Covered	Number Eligible
1974	4–8	10 320
1975	4–9	12 420
1976	3–10	16 880
1977	3–11	19 420
1978-79	3–13	23 000
1979-80	3–14	25 000
1980-81	3–15	26 500
1981-82[b]	4–16	26 500

a. Prior to 1974, the Program covered children aged 6 years (1971), 5–7 (1972) and 4–8 (1973). The Program issued no estimates of number of eligible children for these years.
b. For 1983-84, eligibility was reduced to children 4 to 12 years of age.

4.9.2 Dental Services Covered

The CDCP offers a wide range of dental health education, preventive services, preventive orthodontic care and basic dental treatment. While not a completely comprehensive program covering all possible procedures, the CDCP covers the dental care needs of the great majority of children. One particularly noteworthy program that is unique among all children's dental care plans in Canada is the preventive orthodontic component of the CDCP, which is described in detail later.

The services available as stated in a Schedule of Covered Services and Tariffs are listed in very general terms below. It should be noted that the annual examinations in private practices include minor scaling of a child's teeth, but preventive services are provided in the public health clinics.

Services

Preventive*:	Cleaning and polishing of teeth Topical fluoride application Oral hygiene instruction Dietary counselling Fissure sealants
Diagnostic and Treatment:	One annual examination Annual bitewing radiographs (2 films) Fillings (includes polishing)

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* Provided only in public health clinics.

Stainless steel crowns
Extractions
Root canal treatment in front teeth
Emergency and intermediate care for broken teeth
Emergency examination and treatment
Biopsy
Pulpotomy
Preventive/interceptive orthodontic services*

There are also service and frequency limitations. For example, as stipulated in the above list, only one examination and one pair of bitewing radiographs** are allowed annually. Root canal treatment in posterior teeth is not a covered benefit. Other exclusions are: fillings in primary incisor teeth; space maintainers; gold or porcelain-type restorations; fissure sealants, other than in the public health clinics where this service is undergoing special study; composite restorations in posterior teeth, except those involving the mesial of first bicuspids; and services provided under general anaesthesia.

Services not covered by the program or more frequent use of covered services than allowed by the plan (e.g., examinations) may be provided by a dentist at the parent's expense. The parent must agree in advance to pay for non-covered services and the Department of Health must be notified of the charges involved.

4.9.2.1 The Preventive Orthodontic Service. This service began in 1975 and provides preventive and interceptive orthodontics to children covered under the CDCP. The objectives of this service are to provide good masticatory function and acceptable appearance using simple preventive methods, thereby eliminating the need for complex orthodontic treatment at a later date.

This program provides services to approximately one-third of all participating children at one time or another during the years they are covered by the CDCP. Each year, approximately 700 to 800 children have been referred to the preventive orthodontic clinic by private dentists and public health clinic dentists. Two-thirds of these children were assisted by the program; the remaining one-third had problems too complex for treatment with the relatively simple appliances used. Many of the latter were referred to a private orthodontist (at their own expense). The parents of children eligible to be treated in the preventive orthodontic program must pay the relatively small laboratory charges for making the required appliances.

4.9.3 Providers and Service Settings

Salaried dental teams in mobile and stationary public health clinics and dentists in private offices provide all services of the CDCP. Diagnostic and treatment services are provided in private dentists' office and in health clinics. All children, including those treated in private offices, are referred to public health clinics for preventive services and to the preventive orthodontic clinics for orthodontic services. In 1973, there were six private dentists working part-time in five rural centers. By 1976, nearly 20 per cent of the children who participated in the program were treated in private offices. Although this was not an inconsiderable proportion of total treatment, the private office proportion increased more after September 1977, when the revision of the CDCP permitted greater participation of private dentists throughout the province.

Understandably, as the number of eligible children has increased, so has the number of staff and facilities. In 1972, there were two mobile clinics and one stationary clinic in operation, each staffed by a dentist, two specially-trained dental hygienists, three dental assistants and a receptionist. In addition, six private dentists provided dental services in five rural communities. In 1983, in addition to the dental director of the CDCP, the clinic program staff complement was five dentists, one orthodontist, eight specially-trained dental hygienists and twenty-one dental assistants. (Two more hygienists and one more assistant were employed the previous year, 1982.) These personnel worked in six dental clinics, including the stationary orthodontic clinic in Charlottetown. It is believed that few patients have to travel more than 25 kilometres (15 miles) to reach one of these clinics.

There were 33 private dentists participating in the CDCP in 1981-82, a very high proportion (over 90 per cent) of the total number of private dentists who could participate.

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* Provided only in public health clinics.

**Additional radiographs are allowed when a definite problem appears to exist. Radiographs for anterior root canal treatment are included in the root canal fee.

4.9.4 Administration

The parents or guardians of eligible children can choose to enroll them for diagnosis and clinical treatment in either the Department of Health clinics or private dental offices. Transfers between the private and public sectors are also possible.

The program is funded from general revenues except for the annual registration fee for each participating child. Until the end of 1977, the annual registration fee was $1.50 per participant. From January 1978 to June 1981, it was $2.00 per participating child and from June 1981 to the present, the registration fee has been $4.00 per child per year, with a maximum of $12.00 per family per year. The collection of the annual registration fee from patients attending private dentists is the responsiblity of the dentist. Though the CDCP automatically deducts the registration fee from the claim submitted by the dentist, the extent to which dentists routinely collect the registration fees from the parents is not known.

The fees payable to private dentists under the CDCP are set by a Schedule of Covered Services and Tariffs. In 1982, these tariffs were about 85 per cent of the fees for comparable services listed in the Prince Edward Island Dental Association Fee Guide. Dentists who have registered to participate in the program are not permitted to extra-bill patients for covered services. Dentists may bill the parents directly for services which are not covered by the program. Specialist services are not covered.

Agreements as to fees and covered services, etc., are negotiated between the Department of Health and the executive of the Prince Edward Island Dental Association. The Association has also established a CDCP Committee to meet with the Department of Health to discuss problems related to the program.

4.9.5 Utilization

The utilization experience by children covered in each program year is presented in Table 4.28. Utilization has been around 80 per cent of eligible children, although it dropped slightly below this in 1980-81 and 1981-82. This table also gives a breakdown of the number of children utilizing the private and the public sectors each program year. After 1977, when a major program change permitted greater participation by private dentists, the split between the two sectors was almost 50:50.

Table 4.28
Prince Edward Island Children's Dental Care Program
Utilization, 1974-82

Year[a]	Age Group Covered	Number Eligible	Number Utilizing System		Total Per cent Utilization
			Public	Private	
1974	4–8	10 320	7 415	378	75.5
1975	4–9	12 420	8 259	1 626	79.6
1976	3–10	16 880	10 880	2 624	80.0
1977	3–11	19 420	10 503	4 913	79.4
1978-79	3–13	23 000	10 786	7 716	80.4
1979-80	3–14	25 000	9 884	10 246	80.5
1980-81	3–15	26 500	10 781	9 412	76.2
1981-82	4–16	26 500	10 422	10 132	77.6

a. Prior to 1974 the Program covered children aged 6 years (1971), 5–7 (1972) and 4–8 (1973). The Program issued no estimates of the number of eligible children for these years.

The mean number of services per child treated in the public health clinics is given in Table 4.29, for each year from 1974 to 1982-83. In interpreting these data, it should be noted that the age cohorts of children eligible for the program expanded over this period. Each participating child received an examination and nearly all received a prophylaxis and topical fluoride application. The mean number of radiographic films has increased over time from just under one film per child in the first two years of the program to about one and one-half per child in the last five program years. Since these films are often taken in pairs (as with the bitewing radiographs on each side) it is likely that in the earliest years of the program almost half of the children had no X-rays in any given year. Possibly about one-quarter of the children had no X-rays taken in each of the latter years of the program. The number of fillings placed by the public health clinic staff has dropped by well over one-half, although proper interpretation of this decline is confounded both by the expanding age coverage each program year, and by the increasing transfer of some patients formerly treated in the public health clinics to private practices, as the sharing of patients between the private and public sectors gained impetus after 1977. A comparison of the last two rows of Table 4.29 suggests the ambiguity of the situation.

Whatever the cause, and the possible effects of prevention must also be mentioned, the trend is in the right direction. This is also the case with the mean number of extractions per child, which decreased by one-half since the program began, and with pulpotomies, which showed an even greater decrease. The growing emphasis since 1979-80 on the use of fissure sealants as a preventive measure is also evident. It is interesting to note, as well, how constant has been the number of children treated solely in the clinics since 1976 – just over 10 000 children nearly every year. As mentioned previously, the public health clinics also provide the preventive services for those children participating in the CDCP who were treated in private dental offices. This last fact may have an implication on the reported utilization rate, as we point out in footnote c. to Table 4.29.

Table 4.29
Prince Edward Island Children's Dental Care Program
Mean Number of Services Per Treated Child
Public Health Clinics, 1974-82

Year	Age Group Covered	Examinations[a]	X-rays	Prevention[a]	Restoration[b]	Endodontics	Space Maintainers	Extractions	Other[c]
1974	4–8	1.00	0.90	0.96	2.82	0.11	0.01	0.37	—
1975	4–9	1.00	0.80	0.96	2.72	0.11	0.01	0.39	—
1976	3–10	1.00	1.30	0.96	2.20	0.12	0.03	0.25	—
1977	3–11	1.00	1.74	0.96	2.72	0.07	0.01	0.25	—
1978-79	3–13	1.00	1.60	0.96	1.99	0.09	0.01	0.18	—
1979-80	3–14	1.00	1.47	0.96	1.59	0.08	0.01	0.16	—
1980-81	3–15	1.00	1.39	0.96	1.35	0.08	0.01	0.13	—
1981-82	4–16	1.00	1.39	0.96	1.20	0.06	0.01	0.14	—
1981-82[d]	4–16	1.03	1.52	1.08	1.51	0.06	—	0.20	0.06

a. These numbers are estimated by the program director. They are believed to be quite accurate.
b. These numbers are obtained by dividing the number of surfaces restored by 1.7.
c. Includes treatment of fractured anteriors, emergency treatments, retentive pins, and miscellaneous procedures, but not orthodontic treatment.
d. These data were provided through a newly-developed computerized reporting system covering all children, those treated in public health clinics and those treated by private dentists. Data for preceding years were obtained from annual reports of children treated in public health clinics only.

With respect to orthodontic care, Table 4.30 indicates that during 1980-81 and 1981-82, a total of 2 151 and 2 144 children, respectively, attended the preventive orthodontic clinic. In each year, 26 per cent of the referred children were treated with orthodontic appliances by program staff.

Table 4.30
Prince Edward Island Children's Dental Care Program
Preventive Orthodontic Clinic Experience, 1980-82

Year	Children Attending	New Children Assessed	Children Treated with Appliances	Children with Treatment Completed
1980-81	2 151	737	560	652
1981-82	2 144	677	550	811

4.9.6 Expenditures

The total program expenditures for the period 1974 to 1981-82 are given in Table 4.31. The Children's Dental Care Program costs (including administration costs) increased from $114 000 in 1971 to $318 000 in 1973. The table shows that expenditures continued to rise to 1981-82. Detailed data kept from 1979-80 onwards indicate that administrative costs represent approximately 10 per cent of the total program expenditure. Whether this includes provision for building and equipment depreciation, building overhead allocation, etc., is not known.

Table 4.31
Prince Edward Island Children's Dental Care Program
Expenditures in Nominal and Constant (1974) Dollars, 1974-82

	Total Expenditures		Expenditure Per User	
Year	Nominal	Constant[a]	Nominal	Constant
1974[b]	$ 485 000	$485 000	$62.24	$62.24
1975[c]	625 900	559 442	63.32	56.60
1976	635 900	537 506	47.09	39.80
1977	824 300	640 845	53.47	41.57
1978-79	1 090 300	787 993	58.93	42.59
1979-80[d]	1 287 700	853 205	63.47	42.39
1980-81	1 417 400	846 812	70.19	41.93
1981-82	1 555 300	817 448	75.60	31.73

a. Expenditures deflated by Charlottetown Consumer Price Index, September 1974 = 100.
b. Prior to 1974, program costs were $114 000 (1971), $170 000 (1972), and $318 000 (1973).
c. The preventive orthodontic clinic began to provide care in 1975.
d. Total administrative costs are included from 1979-80 onwards. In percentage terms, these costs were 10.12 (1979-80), 9.51 (1980-81), 9.86 (1981-82).

4.10 Quebec Children's Dental Care Program

The Quebec Children's Dental Care Program is a publicly-funded, third-party payment program administered by La Régie de l'assurance maladie du Québec (RAMQ). The RAMQ, which was established in law on June 13, 1969, administers the Quebec medical services insurance program on behalf of the Ministry of Social Affairs. The Children's Dental Care Program was first written into the Health Insurance Act on June 18, 1971. However, implementation of the Program was delayed because of protracted negotiations between the Quebec dental profession and the provincial government. The Program was eventually implemented on May 1, 1974.

In 1976, the RAMQ also assumed the administration of an already existing dental care program for social assistance recipients in Quebec. The details of this program are described in section 5.10 of this report. Finally, it should not be forgotten that as in all other provinces, certain oral surgical procedures are covered under the medical care program umbrella. The expenditure data relating to this latter program are reported in Chapter Five.

When the Quebec Children's Dental Care Program was first implemented, its design was based on a number of key principles. First, from the outset the program envisioned incremental expansion, that is, it provided for planned growth in the number of children eligible for dental services on a year-to-year basis. Second, dental services were to be universally available for eligible children. No means test or geographic targeting was envisioned. Third, the program was to be publicly financed. Fourth, no deductible or co-payment features were to be incorporated into the program. Fifth, the fees to be paid to dentists were to be based on a fee schedule negotiated between the dental profession and the Ministry of Social Affairs. Sixth, participation by dentists was made optional, that is, dentists could continue practice outside the dental care program. Seventh, the plan permitted the patient to assign the fee directly to the dentist. Eighth, no balance or extra-billing was to be permitted.

4.10.1 Eligibility

When the dental program was initiated in 1974, all children up to and including seven years of age became eligible for dental services. This meant that the program began with 793 000 children eligible for care. In succeeding years, the maximum age for eligiblity was raised by either one or two years per annum so that in time the number of eligible children grew considerably. The relevant data appear in Table 4.32. It is evident from the table that both in 1977 and in 1978 two age groups were added to the eligibility criterion. The table also reveals that beginning in 1981, the program ceased to expand. In that year, the age ceiling for eligibility was not raised.

In 1982, some drastic changes were made to the eligibility criterion. In August of that year, children aged 13 to 15 years ceased to be eligible for dental treatment services, and children up to 11 years of age ceased to be eligible for preventive services. In essence, eligibility for the program in its original form was limited to children 12 years of age only. Quebec thus became the second province to withdraw major categories of dental service from groups of children who were previously eligible for these services. (Prince Edward Island was the first.)

Table 4.32
Quebec Children's Dental Care Program
Children Eligible, 1974-81

Year	Age Group Covered	Number Eligible
1974	0–7	793 486
1975	0–8	824,193
1976	0–9	928 300
1977	0–11	1 133 436
1978	0–13	1 343 600
1979	0–14	1 433 718
1980	0–15	1 525 671
1981	0–15	1 481 654

4.10.2 Dental Services Covered

Dental services covered under the program have fluctuated considerably since 1974. It is not the intent of this report to provide a detailed review of how coverage has changed over the years. In general, the plan has covered diagnostic services, X-rays, preventive services, restorative dentistry, endodontics, and minor and major oral surgery. However, within these categories of service, many important limitations can be observed. For example, in the early years the program did not cover restorative dental services to permanent premolar teeth. For a number of years, treatment of root canals of permanent teeth was not covered. In 1979, the RAMQ ceased to pay for temporary, polycarbonate crowns on fractured anterior permanent teeth. Also in 1979, the program reduced the allowable fee for a topical fluoride application from $10 to $2. As of August 9, 1982, the dental plan ceased to pay a separate fee for X-rays, claiming that payment for this service was now incorporated in the fees for other services. The above is not a detailed documentation of changes in the dental services covered. Rather, it is indicative of the type of important alterations that have taken place even though some element of coverage is still maintained in the broad categories of diagnosis, prevention, restorative dentistry, endodontics and oral surgery. As indicated in 4.10.1, much more categorical changes in services covered were introduced in 1982.

As of August 1982, the following services were covered. For children up to 11 years of age, the program covered examinations and consultations, amalgam and composite resin fillings, stainless steel crowns and polycarbonate crowns for primary teeth, endodontic treatment and oral surgery. For children 12 years of age, the dental care plan covered the services provided for children up to eleven years old, and in addition, covered oral hygiene instruction, prophylaxis and topical fluoride application. For children 13- to 15-years of age, the dental care program covered examinations and consultations, oral hygiene instruction, prophylaxis, topical fluoride application, and limited oral surgery procedures. For 13- to 15-year-olds, the program excluded endodontic services, all restorative services and the extraction of teeth or roots. However, restorative services, prothodontic services, and endodontic services with the exception of root canal treatment on permanent teeth are still provided to children of social assistance recipients. Table 4.33 shows schematic representation of dental services covered as of August 8, 1982. Global exclusions for all children 15 years of age and under include: periodontal treatment; all orthodontic services including space maintainers and space regainers; all gold or gold and porcelain crowns; all prosthodontic services, and fissure sealants.

Table 4.33
Quebec Children's Dental Care Program
Dental Service Categories Covered, August 8, 1982

Age Group	Service Category Examination Consultation[a]	Preventive	Restorative	Endodontic	Oral Surgery
0–11	X	No	X	X	X
12	X	X	X	X	X
13–15	X	X	No[b]	No[b]	X[c]

[a] X-rays are no longer a claimable service.

[b] Children of social assistance recipients are covered for these services.

[c] Does not include extraction of teeth or roots.

4.10.3 Providers and Service Settings

For the most part, the dental services provided under Quebec's Children's Dental Care Program are provided in private dentists' offices. However, the RAMQ will also pay salaries or sessional fees for dentists employed either full or part-time in public hospitals, departments of community health (Département de santé communautaire – DSC), and in local community service centres, (Centre local de service communautaire – CLSC) and provincial prisons.

With respect to providers, in August of 1982 an estimated 2 347 dentists were participating in the program, three were disengaged, and another 227 (includes specialists, university professors, etc.) were not participating at all. Thus, approximately 90 per cent of Quebec's dentists participate. Furthermore, 12 dentists practising outside Quebec also participated in the program. The term "disengaged dentist" simply refers to a dentist who agrees to bill according to the fee structure of the RAMQ but who will not accept assignment of payment. Non-participating dentists are those who bill completely outside the fee structure established by the program. The patients of non-participating dentists may not bill the RAMQ for the portion of the fee allowable under the dental care schedule.

In addition to the above, 15 dentists were paid a full-time salary by the RAMQ in return for which they provided services for persons eligible under the dental care program. A further 36 dentists were paid on a sessional (a full three-hour period) basis. Both these categories of dentists work in hospitals, DSCs, CSLCs, or prisons.

4.10.4 Administration

As was already indicated, the RAMQ administers the dental care program on behalf of the Ministry of Social Affairs (MAS). In essence, the terms and conditions under which the program operates are set by the MAS or are the result of negotiations between the ministry and the Quebec Dental Surgeons Association. The RAMQ is a quasi-independent organization charged with the day-to-day management of the dental care and medical care programs, among other administrative responsibilities. In effect, the RAMQ is the claims processing service and paying agent as far as the practising professional is concerned.

The financing of the dental care program, as is true for the medical care program, has undergone a number of changes, particularly when the federal government passed the Established Programs Financing Act in 1977. At the present time, the provincial revenues required to offset the disbursements under the Régie's programs come from two sources. First, employers must withhold and turn over to the government three per cent of the gross salary paid to employees. Second, the Ministry of Finance uses whatever funds necessary from general revenues to permit the Régie to meet its obligations. This system for financing health services in Quebec is easy to misinterpret, because the impression exists that the three per cent tax for health insurance is a form of health insurance premium and/or is turned over directly to the RAMQ to finance health care. However, since the health insurance payment is only made by persons who are employed and therefore represents a flat tax on income, this type of payment cannot be considered a health insurance premium. Second, and just as important, the monies generated in this way are not turned over to the Ministry of Social Affairs or to the RAMQ for administration of the health programs. Instead they are collected, along with other income taxes, by the Minister of Revenue and are deposited in the province's general funds. In summary, the dental care program in Quebec is funded out of general revenues.

The individual patient faces no deductible or co-payment fees when obtaining dental services under the plan. If a dentist is disengaged, he must notify the patient in writing prior to undertaking any treatment so that the patient will know that the dentist expects to be paid by the patient and that the patient in turn can claim the fee from the RAMQ.

As has been stated, most dental services are provided in private practice and are paid for on a fee-for-service basis. Specialists and general practitioners are paid the same fee for performance of a given procedure. The RAMQ uses a sophisticated claims processing service to handle the claims submitted to it by participating dentists. The system is almost completely computerized, which assures a relatively short turnaround time between receipt of claims and issuing of cheques. By essentially retaining the traditional private practice system, the program offers patients complete freedom of choice as to the dentist through whom they wish to obtain services. As was indicated earlier, no extra-billing or balance billing is permitted by participating or even disengaged dentists.

The RAMQ employs a number of standard administrative mechanisms to monitor the operation of the dental program. The most important of these involves the development of practitioner profiles. Practitioner profiles generally include the following types of information:

— the total cost of services rendered in a period of time;
— the average cost per patient;
— the average number of services provided per patient;
— the frequency of certain specific procedures;
— the mean cost per service claimed;
— the distribution of patients by age and sex.

A practitioner's profile may be compared to that of a professional peer group in order to determine whether the practice in question is excessively far removed from the normal pattern of treatment provided by peer professionals. Of course, in the vast majority of cases no problems arise. However, if on detailed analysis extremely large disparities cannot be explained or justified, then the Régie has several courses of action open to it. The first and most benign of these is to arrange for further explanations from the dentist concerned. Quite often this will clear up the problem. If the matter remains unresolved, the Régie may refer the case to one of two claims adjudication committees; a comité d'appréciation des relevés d'honoraires in the case of general practitioners or a comité de conciliation des honoraires in the case of specialists.

More complex cases may be referred to a Review Committee (comité de révision) composed of seven members. Of these, five are dentists named by the Quebec Order of Dentists and the Quebec Dental Surgeons Association, one is a lawyer named by L'office des professions du Québec and one a civil servant from the RAMQ. This last individual does not have the right to vote on matters brought before the Committee. The composition of the Review Committee is thus similar to that employed in other provinces.

A second monitoring mechanism involves sampling one per cent of claims and determining whether the services itemized on the claim were actually provided to the patient. This involves a communication with the patient who confirms in writing whether the claimed services were indeed received. By and large, this procedure has shown that services claimed were services actually provided.

Historically, one of the troublesome features in the administration of the Quebec Children's Dental Care Program has been the process of negotiation between the government and the dental profession. When the program was initially announced, the profession and the government negotiated for three years before the Ministry of Social Affairs almost unilaterally implemented the program in 1974. Given the strident opposition to the program, it was surprising that within six months, 75 per cent of Quebec dentists had signed up to participate in it. As was stated earlier, over 90 per cent of Quebec dentists now participate in the plan. With the advent of the program, little meaningful communication was maintained between the government and the dental profession. As time went on, the situation deteriorated, particularly since the dentists continued to be paid by the 1974 fee schedule while the costs of dental practice were escalating rapidly during the high inflation of the middle 1970s. By 1978, with no new schedule negotiated, the dentists resorted to more extreme protest measures. This included rotating withdrawal of services, increased disengagement from the RAMQ's dental care program, and public campaigns through various media. These pressure tactics slowly had some result and in April of 1979, almost five years after the last agreement, a new accord was reached. Unfortunately, the cycle repeated itself and no new schedule was negotiated until a further three years had elapsed. The agreement currently in force is dated August 8, 1982. As has already been pointed out, this agreement excluded large numbers of children from both preventive and treatment services. Furthermore, it involves some large reductions in fees for certain types of services. It should be noted that in some other provinces failure to reach a negotiated settlement leads to an automatic escalator clause, leaving only the balance to be negotiated.

4.10.5 Utilization

Table 4.34 presents data showing how the Quebec Children's Dental Care Program has grown over its first eight years of operation. The first year's experience only covers an eight-month period. The table gives the number of children eligible and the number using dental care in each calendar year. The last two columns of the table present utilization percentage figures. Naturally, the most relevant of these is the per cent utilization by five to nine-year-old children. By focusing on this age group, one can observe a noticeable increase in the proportion of this population obtaining dental services. Thus, not only has the direct financial burden of dental care been lifted from users' parents, but the proportion of five- to nine-year-old children using the dental health system has increased by two-thirds over the six-year period from 1975 to 1981.

Table 4.34
Quebec Children's Dental Care Program
Utilization, 1974-81

Year	Age Group Covered	Number Eligible	Number Utilizing	Per cent Utilization	Per cent Utilization[a] 5–9 Years
1974[b]	0–7	793 486	136 686	17.2	—
1975	0–8	824 193	213 437	25.9	43.6[c]
1976	0–10	928 030	336 044	36.2	57.4[d]
1977	0–11	1 133 436	483 403	42.6	64.8
1978	0–13	1 343 600	564 516	42.0	62.0[e]
1979	0–14	1 433 718	731 450	51.0	68.9
1980	0–15	1 525 671	833 616	54.6	73.0
1981	0–15	1 481 654	882 657	59.6	75.7
1982	0–15	1 487 377	877 082	59.0	75.7

a. The percentages are based in part on Statistics Canada demographic projections (Publication No. 91-520), which are slightly at variance with data internal to the RAMQ.
b. Based on eight months program operation.
c. Based on 5–7 year-old children only.
d. Based on 5–8 year-old children only.
e. Utilization affected by dentists temporarily opting out of program to speed up contract revision.

In terms of services provided to users of the plan, Table 4.35 shows a breakdown of dental services by treatment category and year. Since 1975, the annual mean number of examinations per patient has hovered between 1.4 and 1.6 per year. Turning to X-rays, the table shows that up to 1977 there has been a discernable increase in the number of X-rays taken per patient per year. It is probable that the service interruptions in 1978 reduced the number to 2.79. While the mean number of X-rays per patient jumped again in 1979, one may notice that the earlier rising trend had been stopped, and indeed, the 1980-81 figures show a modest decline. This decrease may be related to the routine limitation of 14 films per child that was introduced in the 1979 fee schedule. Although claims for more than 14 films may still be submitted for special consideration, prior to 1979 there was no explicit limit on the number of films which could be claimed as part of an oral survey. It is pertinent to note here that in some children's dental care programs in Canada, the annual mean number of X-ray films taken is as low as 0.8 per patient in Prince Edward Island (1978) and 1.1 per patient in Saskatchewan (1978-79). As of August 1982, X-rays no longer represent a service which may be claimed separate from the examination fee under the Quebec Children's Dental Care Program.

The fifth column of Table 4.35 shows the annual mean number of preventive services, comprising a prophylaxis, a topical fluoride application, and/or a dental health education session. Here one observes a clear upward trend which has only been interupted by the effect of the 1978 service withdrawals. An interesting aspect of the continuing rise in the provision of preventive services is that one of the major alterations to the fee schedule in 1979 was 80 per cent cuts in the fee for topical fluoride application ($10 to $2) and for dental health education ($10 to $2). At first glance, one would have to conclude that the supply of preventive dental services is rather insensitive to price, at least within the context of the Quebec program. With respect to curative dental services, the two most noteworthy features revealed by the data are the recent increase in the annual mean number of endodontic services, from 0.14 to

Table 4.35
Quebec Children's Dental Care Program
Mean Number of Services per User, 1974-81

Year	Age Group Covered	Mean Number of Services Examinations	X-Rays	Prevention	Restorations	Endodontics	Extractions
1974[a]	5–7	1.17	2.68	1.90	2.20	0.10	1.02
1975	5–8	1.41	2.84	2.49	2.62	0.16	1.16
1976	5–9	1.47	3.16	2.85	2.53	0.14	0.88
1977	5–11	1.49	3.33	3.06	2.49	0.14	0.74
1978[b]	5–13	1.45	2.79	2.85	2.23	0.14	0.63
1979[c]	5–14	1.43	3.26	3.31	2.73	0.25	0.57
1980	5–15	1.41	3.04	3.43	2.63	0.32	0.48
1981	5–15	1.58	3.00	3.86	2.87	0.33	0.39

a. Based on eight months program operation.
b. Data affected by dentists temporarily opting out of program.
c. New fee contract negotiated in 1979.

Table 4.36
Quebec Children's Dental Care Program
Extractions per 100 Restorations, 1974-81

Year	Age Group	Extractions Per 100 Restorations
1974	5–7	46.3
1975	5–8	44.4
1976	5–9	34.6
1977	5–9	29.6
1978	5–9	28.1
1979	5–9	23.0
1980	5–9	21.1
1981	5–9	15.4

0.33, and the rather marked decline in the annual mean number of extractions, from 1.2. to 0.4. When seen jointly these developments, particularly the decrease in the extraction rate, can be interpreted as highly desirable.

Expanding on this last point a bit, Table 4.36 shows for a more or less fixed age group the changing balance between the extraction and restoration of teeth in Quebec children. Despite the lack of completely homogenous age groupings, the data over the past eight years indicate that the number of extractions per hundred restorations has declined significantly. Yet even with the 1981 figure of 15.4 extractions per hundred fillings, it is evident from the reported literature that this is still a relatively high extraction rate, mitigated only by the fact that the current trend is in a desired direction.

The overall distribution of dental services by category and year is given in Table 4.37. The most interesting information to be gleaned from this table is that by 1981, nearly 71 per cent of dental services were provided in the three categories, examination, X-rays, and prevention. Restorative services constituted only 23 per cent of all services claimed. In view of the fact that the program experienced dramatic cuts in the allowable fees for most categories of preventive services, it is somewhat surprising that prevention has continued to represent an increasing proportion of all services rendered. The table indicates that as a proportion of all services, prevention has grown from 22 to 33 per cent. Since the fee schedule changes were introduced in 1979, it is possible that too little time has elasped for the expected trend to manifest itself. To some degree, the situation with restorative services is similar. In this case, the relative fee increases have not been accompanied by a growth in restorative services provided. Only in the case of endodontics does the normal price/supply relationship appear to be satisfied.

Table 4.37
Quebec Children's Dental Care Program
Distribution of Dental Services by Category and Year

Year	Age Group Covered	Per cent Examinations	X-rays	Prevention	Restorations	Endodontics	Extractions	Other
1974	0–7	13.7	29.6	22.2	22.8	1.4	10.2	0.1
1975	0–8	14.2	28.0	25.6	23.0	1.5	7.6	0.1
1976	0–9	14.0	27.5	29.5	21.5	1.3	6.1	0.1
1977	0–11	13.5	28.2	30.4	21.3	1.2	5.4	0.0
1978	0–13	14.6	28.1	28.6	22.1	1.2	5.4	0.0
1979	0–14	12.8	27.9	29.6	22.8	2.3	4.6	0.0
1980	0–15	12.9	26.5	31.3	22.4	2.9	4.0	0.0
1981	0–15	13.5	24.4	33.0	23.3	2.8	3.0	0.0

4.10.6 Expenditures

As would be expected in a large province like Quebec, with over a million children eligible for the dental care program, the overall public expenditure for the dental care program is considerable. Table 4.38 shows that the program expenditures have grown from just over $7 million in 1974 to nearly $85 million in 1981. This is a very considerable increase that sounds quite alarming until one realizes that expenditures increased because: (1) the number of children covered grew by 90 per cent; (2) the age structure changed and with this the nature of the dental problems of the children covered; and (3) there was a significant increase in the utilization rate, one of the major and desired objectives of any children's dental program. The drop in the 1982 expenditures was largely due to the program reductions implemented in August 1982.

In view of the fact that the middle 1970s was a period of high inflation, it is worth looking at the expenditure data in terms of constant dollars. This has been done in Table 4.38 which shows both nominal and constant dollar expenditures from 1974 through to 1981. The constant dollars were calculated by deflating actual expenditures with the Montreal Consumer Price Index as determined by Statistics Canada. The results of these calculations show, first, that the increase in total expenditures is considerably more modest than the nominal dollar figure suggests. Second, the increase that did occur must be tempered by the fact that the number and the age range of the eligible population increased significantly. Third, when examined on a per patient basis, it is clear that the expenditure per user declined from 1974 to 1978, then, as a result of the renegotiated fee schedule, jumped only to decline again. By 1981, the per user expenditure was lower than in 1974. This is a relatively significant finding, in view of the fact that the average user is now considerably older and requires a more extensive mix of services.

Table 4.38
Quebec Children's Dental Care Program
Expenditures in Nominal and Constant (1974) Dollars, 1974-82

Year	Total Expenditure Nominal	Constant[a]	Expenditure Per User Nominal	Constant
1974[b]	$ 7 233 210	$ 7 233 210	$52.92	$52.92
1975	12 977 464	11 702 552	60.80	54.83
1976	21 624 831	18 268 229	64.35	54.36
1977	31 568 094	24 606 309	65.30	50.90
1978[c]	33 867 070	24 064 989	55.99	42.63
1979[d]	62 711 915	40 834 121	85.74	55.83
1980	76 152 447	44 946 022	91.35	53.92
1981	84 698 885	45 244 670	95.96	51.26
1982	77 254 766	36 809 102	88.08	41.97

a. Expenditures deflated by Montreal annual average CPI, 1974 = 100
b. Based on eight-month program operation.
c. Expenditures affected by dentists temporarily opting out of program.
d. Expenditures reflect new fees in renegotiated contract.

The observed expenditure experience can best be explained by an examination of the dental fee structure. Table 4.39 attempts to do this by providing the fees for a number of specific services from the years 1974, 1979, and 1982. The data indicate that the fee for dental examinations increased from $11 in 1974 to $17.25 in 1982. It should be noted, however, that in 1982 the fee for X-rays was included in the examination fee. Over the same time period, the fee for dental health education sessions decreased from $10 to $2, the prophylaxis fee stayed constant, although it had been increased to $10 in 1979, and the topical fluoride fee also decreased from $10 to $2. In the case of amalgam fillings, pulpotomies, and extractions, the fees were increased in 1979 and in 1982. When the 1982 fees are examined in terms of constant 1974 dollars, the picture alters somewhat. Dental examinations are now worth $9.21, in 1974 dollars, but include all necessary X-rays, which was not the case in 1974. The dental health education session, as well as the topical fluoride application, are worth just a little bit over $1 each in 1974 terms. Overall, amalgam restorations have increased in value by about 35 per cent relative to their value in 1974. Pulpotomies have held their own and extractions have suffered a slight decline in their fee in constant dollar terms.

Table 4.39
Quebec Children's Dental Care Program
Fees by Year and Selected Service

Service Category	Service Fees in Dollars 1974	1979	1982	1982 Constant Dollars (1974)
Examination	11.00	13.00	17.25	9.21
X-Rays	3.00/1.50	3.75/2.00	—	—
Education	10.00	2.50	2.00	1.07
Prophylaxis	5.00	10.00	5.00	2.67
Topical Fluoride	10.00	4.00	2.00	1.07
Amalgam (2 sur.)	12.00	19.50	31.00	16.56
Pulpotomy	14.00	24.00	26.00	13.89
Extractions	6.00/3.00	7.75/4.00	9.50/4.40	5.07/2.35

4.10.7 Special Programs

The Government of Quebec also runs a number of special dental programs. The most important of these are the dental programs operating in the 32 DSCs (Département de santé communautaire) and the various CLSCs (Centre local de service communautaire). While little actual information is available on these programs, they are significant and provide a large number of dental program activities. The programs employ approximately 20 full-time equivalent dentists and around 200 to 250 dental hygienists. The focus of the DSC and CLSC programs is prevention, particularly since August 1982 when the DSCs were provided with additional dental hygiene positions in order to provide preventive services to some of the children up to 11 years old who were eliminated from receiving the preventive services under the RAMQ Children's Dental Care Program. In the main the DSC and CLSC programs are school-oriented. No budgetary information is available at this time.

Another activity supported by the provincial government is the summer treatment clinics aimed at children, particularly handicapped children. This program is operated through the dental clinics of the three dental faculties in Quebec. The program has a long history and provides dental treatment to many children who might otherwise not receive it. The overall budget for this program is approximately $250 000.

In the past, the province used to subsidize or completely pay for the installation of water fluoridation equipment. However, since 1978, there has been a moratorium on water fluoridation in Quebec and no new systems have gone into operation. Approximately 16 per cent of Quebec's population consumes fluoridated water.

4.11 Saskatchewan Health Dental Plan

The Saskatchewan Health Dental Plan (SHDP), a province-wide* dental program for children, was announced in March 1972 and instituted in September 1974 with the treatment of six-year-olds. Since 1974, additional age cohorts have been added to the program so that in 1982-83, children aged five to 16 were eligible. Over the years, much of the dental treatment under this program has been rendered by dental therapists (formerly called dental nurses) who prepare and fill teeth, give local anaesthesia and perform simple extractions, among other tasks. These personnel are trained at the Wascana Institute in Regina in a two-year educational program specifically developed to coincide with the advent and personnel needs of the SHDP. Although a smaller children's dental program utilizing dental nurses in the Yukon and Northwest Territories preceded the SHDP, and federally-supported treatment programs for Canada's native people currently use dental nurses, there is no doubt that the Saskatchewan program is the most prominent example of this type of dental service delivery in North America. That this dental innovation occurred on such a broad scale in Saskatchewan should come as no surprise, since in Canada this province traditionally has been the leader in innovative social programs for its citizens.

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* Actually, the data reported here exclude dental plans for children in Northern Saskatchewan which operates through the Northern Health Services Branch, Department of Health with consultation provided by the SHDP administration.

The SHDP was developed as a response by government to oral health surveys which found that the disease levels experienced by the province's children were generally high and that the levels of treatment received were generally low. This reflected, in part, the relatively low supply of dentists in Saskatchewan at that time and a persistent maldistribution of dentists which did not favour the large rural population of the province. In 1962, a delegation of three persons (one representing organized dentistry and two from government) was commissioned to visit New Zealand and report upon the public dental nurse program there. Later, between 1970 and 1973, in a special study, a team composed of dentists, dental nurses and other dental auxiliaries provided dental services in the Oxbow region of southeastern Saskatchewan. In this study, the feasibility of providing quality dental care with dental nurses was satisfactorily demonstrated.

The foregoing circumstances and events, along with a number of later reviews and reports, eventually led to the formulation of a dental program policy that, to improve geographic accessibility and convenience, stressed the rendering of dental services primarily by dental nurse/dental assistant teams (operating largely independently of dentists*) in dental clinics attached to schools. As well, one larger clinic was also established outside of schools to which the children were transported. Mainly, however, the dental staff travelled to the school-based clinics, a pattern which has continued to the present.

This model for providing dental care was not greeted enthusiastically by the province's private dental practitioners as represented by the College of Dental Surgeons of Saskatchewan. The College approved the employment of dental nurses but maintained that they should work directly under the supervision of dentists as had been done in the Oxbow study. Although since 1974 some of the dental care under the SHDP has been regularly provided by private dentists on a referral and emergency basis throughout the province, it was not until September 1, 1981, that major participation by private practitioners began. On that date, following negotiations with the College, arrangements were made for dentists in private practice to provide dental care to enrolled children 14 years of age and over who were attending certain specified high schools. The Department of Health agreed to make a capitation payment to the College of Dental Surgeons for each young person making one or more dental visits to a participating dentist. In turn, the College of Dental Surgeons paid participating dental practitioners on a fee for service basis in accordance with a payment schedule established by the College for this program.

4.11.1 Eligibility

Age and residence in Saskatchewan are the basis of eligibility for the SHDP. Beginning in the 1974-75 program year, children born in 1968, most of whom were then six years old, became eligible. Additional age groups have been phased into the plan over the years. During 1981-82 children born in 1966 through 1977 (aged four through 15) were eligible. As Table 4.40 indicates, the total number of children eligible increased 12-fold during the years 1974-75 to 1981-82. The number enrolled increased nearly 14 times over the same period, and even more when one considers the growing number of Indian children enrolling in the plan. In 1982-83, the age range was altered so that ages five to 16 became eligible. It is believed that this will continue to be the age range covered in the near future since, consistent with a school-based program, it more closely reflects the age range of the school population. In 1982-83, children born in 1966, 1967 and 1968 were defined as adolescents for the purpose of determining the sites in which dental treatment would be given.

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* The plan involves about one supervising dentist for every seven dental therapist-assistant team.

Table 4.40
Saskatchewan Health Dental Plan
Children Eligible, 1974-82

Year[a]	Age Group Covered[b]	Number Eligible	Number Enrolled	Per cent Enrolled	Other Children Enrolled	
					Oxbow[c]	Reg. Indians[d]
1974-75	5–7	14 347	10 924	76.1	2 146	70
1975-76	4–8	43 152	35 434	82.1	1 598	539
1976-77	4–10	69 885	58 789	84.1	577	1 442
1977-78	4–11	99 110	81 557	82.3	421	2 123
1978-79	3–13	128 819	106 492	82.7	33	3 226
1979-80	3–14	142 182	118 004	83.0	—	4 135
1980-81	3–15	155 357	129 669	83.5	—	5 004
1981-82[e]	3–16	177 631	149 743	84.3	—	—

a. Operating year is from 1 September to 31 August.

b. Not all children in leading and trailing age groups are eligible in a given program year. Thus in the leading age group only children born between September and December are eligible while in the trailing age group on those born from January to August are eligible during a given program year.

c. These children are outside of the eligible age range but were enrolled because of their participation in the original pilot project.

d. Indians are eligible if they fit the age criteria and attend integrated schools. By 1981-82, 47.9 per cent of eligible children had enrolled.

e. For the first time, includes children from the Swift Current Health Region.

4.11.2 Dental Services Covered

The program covers a broad range of diagnostic, preventive and therapeutic dental procedures. The primary exclusion is major orthodontics. Shifts have occurred in the emphasis given particular preventive services offered in the clinics. For example, the frequency of patient nutritional counselling was increased beginning 1976-77 and fissure sealants have received particular emphasis since 1980. Beginning in 1975-76, X-rays have been provided on the basis of individual need rather than more-or-less routinely for all. Similarly, treatment policies in the school clinics discourage the routine restoration of decayed anterior primary centrals and laterals and of any primary teeth that are loose and likely to be shed within six months. The summary of dental services covered appears below.

Table 4.41
Saskatchewan Health Dental Plan
Dental Services Covered

- Parent contracts
- Examinations
- X-rays
- Preventive services
  - Prophylaxis
  - Topical fluoride
  - Nutritional counselling
  - Oral hygiene instruction
  - Fissure sealants
- Orthodontics
  - Space maintenance
  - Other minor orthodontics
- Restorations
  - Amalgam
  - Composite
  - Crown
- Endodontics
  - Pulp Capping
  - Pulpotomy
  - Root canal filling
- Extractions
- Other
  - See footnote b, Table 4.42

4.11.3 Providers and Service Settings

Since its inception, dental care in the SHDP has been provided mainly in school clinics that are distributed throughout the six administrative regions of the plan according to population density. In 1974-75, there were 215 permanent clinics; in August 1982, there were 526. As a result of the policy change mandating responsibility for the dental care of adolescent children in certain regions to dentists in private practice, eleven clinics in high schools were phased out. In fiscal year 1982-83, no more than 515 clinics were operating.

The number of salaried SHDP staff has grown from about 140 administrative and clinical staff in 1974-75 to 445 in 1983-84. Excluding the senior administrative staff who were dentists, 88 per cent of these 445 were clinical personnel: 23 dentists, six dental hygienists, 164 dental therapists and 198 certified dental assistants. Decreases in the number of permanent staff occurred in 1982-83 in accordance with the phasing-out of high school clinics and the greater participation of private dentists in the treatment of adolescents.

Since the SHDP began, dentists in private practice have provided emergency and referred dental care on a fee-for-service basis in certain locations. Greater participation by private practitioners was negotiated in 1981, when the College of Dental Surgeons of Saskatchewan undertook responsibility for the dental care of adolescent children in specified regions. According to the College of Dental Surgeons, 93 per cent of its active members agreed to participate in what has been informally called the SHDP adolescent program.

The site of dental care for adolescents (private general practice or dental plan clinic) is strictly determined by the designation of the schools which the adolescents attend. Schools which had grades 9 and 10 and were within 50 kilometres of a general practice dentist were categorized as general practice schools. The exception to this rule was Regina and Saskatoon where approximately 50 per cent of the high schools were designated general practice schools. In 1981-82, 87 of 850 comprehensive and high schools were designated general practice schools. In 1982-83, 135 schools were so designated. This allocation was weighted towards private practice in areas outside of Regina and Saskatoon, to enhance the establishment and maintenance of private dental practice in less urban areas. In September 1983, all high schools in Regina and Saskatoon were designated private practice schools.

4.11.4 Administration

The SHDP is funded from general revenues of the Province of Saskatchewan. There are no user charges. The College of Dental Surgeons is paid on a capitation basis to coordinate and pay for the provision of adolescent dental care by participating private dental practitioners. The capitation rate in 1981-82 was $103 per adolescent child who used the program at least once. In 1982-83, the negotiated capitation rate was $99 per adolescent. The College pays private dentists on a fee-for-service basis according to a payment schedule established by the College for the adolescent program.

4.11.5 Utilization

The Saskatchewan data are not reported in a way that permits the calculation of utilization rates in the manner employed elsewhere in this report. However, it is believed that while enrollment does not always ensure treatment, nearly all of those enrolled in the clinic program are treated in the indicated year. Hence an approximation to the utilization rate may be inferred from the per cent enrollment given in Table 4.40 in the section on eligibility. After the start-up year, overall enrollment has been high — 82 to 84 per cent. The enrollment of the older children, born in 1966 and 1967, has been slightly but consistently lower at 72 to 80 per cent.

Table 4.42 presents the distribution of total dental services provided from 1974-75 to 1981-82. The data include the clinical services for adolescents by dentists in private practice. In its own annual reports, the SHDP counts "parent contacts" as distinct services. In the present report (Table 4.42) "parent contacts" are not included in order to attain some consistency with the other dental programs presented. Of the traditional clinical service categories, examinations represented nine per cent of all services in 1974-75, rising to 20 per cent by 1981-82. X-rays accounted for 22.6 per cent of services in 1974-75, but, because of the previously mentioned policy change implemented during 1975-76, the relative frequency of X-rays has declined and has hovered between eight and 12 per cent since 1976-77. The ten per cent of services designated as "other" in 1981-82 includes fissure sealants, the number of which increased markedly in 1981-82 to 45 569 from 214 in 1980-81.

Table 4.42

Saskatchewan Health Dental Plan
Distribution of Services by Category, 1974-82[a]

Year	Age Group Covered	Per cent							
		Examinations	X-rays	Prevention	Restorations	Endodontics	Orthodontics	Extractions	Other[b]
1974-75	5–7	9.2	22.6	24.0	4.7	2.9	0.3	2.9	3.5
1975-76	4–8	10.8	15.4	29.8	32.8	3.7	0.1	2.4	4.9
1976-77	4–10	12.4	8.9	35.6	29.3	2.5	0.7	2.8	7.9
1977-78	4–11	14.9	11.8	36.5	24.4	2.3	0.6	2.2	7.3
1978-79	3–13	16.5	11.9	37.1	22.7	1.7	0.7	2.7	6.8
1979-80	3–14	19.5	8.4	40.3	20.7	1.5	0.7	2.7	6.2
1980-81	3–15	21.9	7.8	40.4	18.8	1.3	0.4	2.6	6.7
1981-82	3–16	19.8	10.0	36.8	19.1	1.2	0.5	2.6	10.1

a. For consistency with other programs included in this report, the service category "parent contact" has been omitted.

b. Other services include diagnostic models, polish amalgam, fissure sealants, retentive pins, discing and slicing, sedative dressings, periodontal services, other surgical services, and starting in 1981-82, some prosthetic services.

As Table 4.42 indicates, preventive services have represented an increasing share of services provided, rising steadily from 24 per cent in 1974-75 to 40.4 per cent in 1980-81, thereafter falling to 36.8 per cent in 1981-82.* Seen together, diagnostic and preventive services accounted for 55.8 per cent of all services in 1974-75, rising to 70.1 per cent in 1980-81. In 1981-82, diagnostic and preventive services constituted 66.6 per cent of all services provided.

Restorative dental services have declined in terms of their relative frequency. As Table 4.42 indicates, the drop was steady from 1974-75 to 1980-81, whereupon it leveled off at 19 per cent. This trend generally applies to endodontic services which declined from 2.9 per cent in 1974-75 to 1.2 per cent in 1981-82. Orthodontic services, mainly space maintainers, have held steady since 1976-77 at 0.4 to 0.7 per cent as have extractions at 2.2 to 2.9 per cent. The service category, "Other", started at 3.5 per cent, then quickly jumped and remained between 6.2 and 7.9 per cent up to 1980-81. In 1981-82, there was another increase in this category presumably brought about by the increasing use of pit and fissure sealants as a preventive measure.

By themselves, the percentage distribution figures are insufficient and can be misleading. To document more completely the utilization experience under the SHDP, Table 4.43 presents the average number of services provided per enrolled child. To repeat, enrolled children are being used as a proxy for treated children. While the table

Table 4.43

Saskatchewan Health Dental Plan
Mean Services per Enrolled Child, 1974-82[a]

Year	Age Group Covered	Mean Services							
		Examinations	X-rays	Prevention	Restorations	Endodontics	Orthodontics	Extractions	Other[b]
1974-75	5–7	0.98	2.41	2.56	3.71	0.31	0.03	0.31	0.37
1975-76	4–8	0.99	1.41	2.72	2.99	0.34	0.01	0.22	0.45
1976-77	4–10	1.06	0.76	3.05	2.51	0.21	0.06	0.24	0.68
1977-78	4–11	1.21	0.96	2.97	1.98	0.19	0.05	0.18	0.59
1978-79	3–13	1.24	0.89	2.78	1.70	0.13	0.05	0.21	0.51
1979-80	3–14	1.32	0.57	2.73	1.40	0.10	0.05	0.18[c]	0.42
1980-81	3–15	1.51	0.54	2.79	1.30	0.09	0.03	0.18[c]	0.46
1981-82	3–16	1.31	0.66	2.43	1.26	0.08	0.03	0.17[c]	0.67[d]

a. For consistency with other programs included in this report, the service category "parent contact" has been omitted.

b. Other services include diagnostic models, polish amalgam, fissure sealants (particularly since 1980), retentive pins, discing and slicing, sedative dressings, periodontal services, other surgical services, and starting in 1981-82, some prosthetic services.

c. In these three years an average of 0.06 extractions were for orthodontic reasons.

d. In 1981-82, an average of 0.29 other services (44 per cent) were fissure sealants which previously were used very little.

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* Fissure sealants, which are counted as preventive services in the SHDP reports, are included here in "other services".

generally confirms the observation made immediately above, certain findings merge more clearly. For example, while examinations have indeed increased, the rise has been moderate. Similarly, the change in the preventive services provided is not nearly as apparent when seen on a per enrolled-child basis. On the other hand, the reductions in the average number of restorations and the number of extractions is considerably more evident. With respect to restorations, there may be several reasons for the observed trend, including: the cumulative effect of preventive and maintenance care; the differing age distribution in each program year; and the fact that the caries experience of similarly-aged children at entrance to the program has declined over time. As for the decline in extractions, some of the same reasons may hold as applied to restorations. It should be noted that there will always be a small number of teeth extracted for noncaries reasons, primarily to help prevent or solve certain crowding conditions in the permanent dentition.

Details of the experience of adolescents, children born in 1966 and 1967, who were treated either in general practices or in dental plan clinics, were first published in the 1981-82 Annual Report of the SHDP. Because of interest in these new data, three tables from this Report are presented here. It should be remembered that the 1966 and 1967 birth-year groups had been enrolled in the SHDP clinic programs for the previous three and five years, respectively, and that the adolescents treated in private practice were more likely to be from rural areas.

Table 4.44 indicates that the prevalence of decay was slightly lower but that the mean number of decayed teeth was higher among the adolescents assigned to general practice. Table 4.45 shows that the per cent of adolescents enrolled who were seen at least once was lower in the general practice program than in the dental clinic plan (overall, 79 per cent vs. 97 per cent). Analysis of Table 4.46 of service statistics shows that adolescents in the general practice program received fewer examinations per child (1.02 vs. 1.19), many more radiographic films per child (2.09 vs. 0.85) and, consistent with their higher caries levels, more permanent teeth fillings and extractions per child.

Table 4.44
Saskatchewan Health Dental Plan
Dental Health of Enrolled Adolescents, 1981-82

Year Children Born	Provider of Service	Mean Number of Teeth: Decayed	Missing	Filled	DMF	Per cent Children with DMF=0
1966	Dental Plan	1.28	0.47	6.62	8.39	3.84
	General Practice	1.68	0.43	5.99	8.11	4.78
1967	Dental Plan	1.22	0.34	5.64	7.21	3.88
	General Practice	1.63	0.32	5.12	7.08	4.57

Table 4.45
Saskatchewan Health Dental Plan
Number of Enrolled Adolescents Utilizing Dental Services, 1981-82[a]

Year Children Born	Provider of Service	Number Enrolled	Number Seen Once or More	Per cent of Enrolled Seen Once or More	Number Completed	Per cent of Enrolled Completed
1966	Dental Plan	6 693	6 337	94.68	6 079	90.83
	General Practice	5 152	4 224	81.99	4 104	81.24
	Sub-total	11 845	10 561	89.16	10 183	85.97
1967	Dental Plan	7 827	7 688	98.22	7 410	94.67
	General Practice	4 287	3 273	76.35	3 181	74.20
	Sub-total	12 114	10 961	90.48	10 591	87.43
Total	Dental Plan	14 520	14 025	96.59	13 489	92.90
	General Practice	9 439	7 497	79.43	7 285	77.18
	Total	23 959	21 522	89.83	20 774	86.71

a. Source: Annual Report 1981-82, Saskatchewan Health Dental Plan.

Table 4.46
Saskatchewan Health Dental Plan
Principal Clinical Services Provided to Adolescents
Born in 1966 and 1967, 1981-82[a]

Service	Services Per 1,000 Adolescents Treated	
	General Practice	Dental Plan
Comprehensive examination	999	947
Emergency oral examination	10	27
Specific oral examination	12	229
Intra-oral periapical radiogram–single film	74	69
Intra-oral periapical radiogram–two films	180	18
Intra-oral periapical radiogram–three films	14	4
Intra-oral periapical radiogram–four films	53	2
Intra-oral periapical radiogram–five films	12	1
Intra-oral/occlusal–single film	1	2
Intra-oral/bitewing–one film	2	7
Intra-oral/bitewing–two films	663	354
Dental prophylaxis, oral hygiene instruction and topical fluoride	758	857
Fillings:		
Permanent – one surface	877	628
Permanent – two surfaces	472	394
Permanent – three surfaces	116	106
Permanent – four surfaces	16	17
Permanent – five surfaces	4	3
Acrylic or composite Class I or V only	53	70
Class III	97	98
Class IV	17	15
Acrylic or composite, acid etch tech., double class IV (involving mesial & distal)	5	4
Plastic (acrylic) processed	6	2
Endodontics – one canal	8	7
Extraction – single tooth	86	27
Each additional tooth in the same quadrant at the same appointment	4	2

a. Source: Annual Report, 1981-82. Saskatchewan Health Dental Plan.

4.11.6 Expenditures

Expenditures of the SHDP from 1974-75 to 1981-82 are summarized in Table 4.47. These financial data are taken from annual reports which also provide more detailed breakdowns. The total annual costs, as indicated in the table, increased from $2.1 million in 1974-75 to $13.4 million in 1981-82. Of course, most of this increase is due to the expansion of the program from approximately 13 000 children in 1974-75 to 155 000 children in 1981-82. Some of the expenditure growth may be ascribed to inflation which was pronounced during the years of program operation. We have tried to adjust for this by showing constant (1974) dollar expenditures. It seems clear that the high costs per child in the first two program years were created mainly by the higher per capita administrative and travel costs in these early years when fewer children were enrolled through each school. Payments to dentists in private practice have been made each program year; however, these grew appreciably in 1981-82 when the capitation payments for the adolescents were introduced.

Two additional points may be noted about the SHDP expenditure experience. First, over the years being considered, Saskatchewan operated the only children's dental program in Canada that has seen a steady decline in current or nominal dollar expenditures per child treated (enrolled) in the program. Second, considering that the Saskatchewan program treats a high proportion of enrolled children each year, and assuming that most of these are now in a maintenance situation, one should not expect significant further per capita expenditure decreases in real terms.

Table 4.47
Saskatchewan Health Dental Plan
Nominal and Constant (1974) Dollar Expenditures[a]

Year	Total Expenditures Nominal	Total Expenditures Constant[b]	Expenditures Per Enrolled Child Nominal	Expenditures Per Enrolled Child Constant
1974-75	$ 2 142 600	$2 142 600	$163.05	$163.05
1975-76	4 113 300	3 690 133	109.48	98.22
1976-77	5 041 100	4 221 794	83.70	70.10
1977-78	6 206 000	4 753 613	73.83	56.55
1978-79	7 683 800	5 447 242	70.01	49.63
1979-80	8 305 300	5 394 119	68.00	44.16
1980-81	10 274 500	6 012 342	76.29	44.64
1981-82	13 416 100	7 041 194	86.29	45.29

a. The costs reported here are slightly lower than those published in SHDP Annual Reports since off-setting program revenues are taken into account.

b. Expenditures deflated by a simple average of the September Consumer Price Index for Regina and Saskatoon, 1974 = 100.

Special Studies Available

A number of separate studies concerning the SHDP have been published by the Government of Saskatchewan. In addition to the Annual Reports, which are themselves a rich source of detail, several internal studies are also available from the SHDP.[17-19]

4.12 Northwest Territories Dental Care Program

The Northwest Territories (NWT) is a sparsely-populated area located in the northern region of Canada. Mid-1981 census figures show a total population of 45 741 persons comprising 8 549 Indians, 15 796 Inuit and 21 396 others. This population is growing more rapidly than the Canadian population as a whole due to relatively-higher birth rates among both Inuit and Indians. The population lives in relatively numerous, small and frequently-isolated communities.

The mandate for the provision of health services within the Northwest Territories rests with the Department of National Health and Welfare (DNH&W). The Medical Services Branch of the Department provides acute care and preventive services to the majority of communities in the Northwest Territories, with the exception of Yellowknife, Hay River, Fort Smith, and Frobisher Bay. Acute care in these centres is provided by the Department of Health, Northwest Territories Government. Health care delivery is, therefore, a shared responsibility between the Department of Health, Government of the Northern Territories and the DNH&W Medical Services Branch, Northwest Territories Region. The further devolution of responsibility for health care delivery will be the subject of future negotiations between the federal and territorial governments. The information reported below, however, applies to the 1981-82 period when the Department of National Health and Welfare through its Medical Services Branch had sole responsibility for health care in the Northwest Territories.

4.12.1 Eligibility

In 1981, all of the nearly 24 000 Indians and Inuit in the Northwest Territories were eligible for the Medical Services Branch dental program. In addition, the Medical Services Branch ensures access to dental care for all of the population in the Northwest Territories in accordance with the mandate for provision of health services.

4.12.2 Dental Services Covered

The dental services offered through the Medical Services Branch are described in Section 3.5.2. of this report. To recapitulate, the dental program provides for a full range of basic dental services including the normal diagnostic procedures, all preventive services, restorative services using amalgam alloys and composite resins, prosthodontics, periodontics, endodontics, and oral surgery. Crown and bridge dentistry and orthodontic treatment are not provided as a matter of routine, although they may be covered following appropriate prior approval from program administrators. In general, the Branch depends on the judgment of the attending dentist to determine the most appropriate mix of services in individual cases. There are no policies which categorically exclude any specific dental treatment from the program.

4.12.3 Providers and Service Settings

Because of the challenge in providing adequate access to dental care for the many isolated communities in the Northwest Territories, a variety of delivery mechanisms have evolved. At the risk of simplifying slightly, five basic provider arrangements exist. First, the Medical Services Branch has traditionally employed dentists on salary to provide care for a "base" community, with the additional responsibility of periodically delivering services to smaller settlements located in the vicinity. These latter communities are generally only accessible by air and require dentists to rely on portable equipment. Second, the Medical Services Branch arranges for the training of dental therapists and hires them to live in and provide basic dental care (excluding diagnosis) for designated settlements in the Northwest Territories. In 1981, sixteen dental therapists were employed in the NWT region. Third, the Medical Services Branch enters into contractual arrangements with private dental practitioners and certain dental faculties to provide dental care for designated population groups in the Northwest Territories. Fourth, although the tendency is decreasing, the Branch still relies on dentists brought in for a short period of time (locums) to provide care in special circumstances. Fifth, the Medical Services Branch has encouraged dentists to set up permanent private dental practices in some of the larger communities. This approach has met with some success in recent years.

With the exception of the private practice mode, the Medical Services Branch provides the necessary clinic space, equipment and supplies to enable the dental personnel to deliver quality dental care. The number of fixed clinics is increasing especially with the expansion of the dental therapist activities. In communities periodically served by visiting personnel, dental care is provided using portable equipment set up in nursing stations, schools or other suitable space. In private dental practice, where it exists, the dentist arranges for facilities in the customary manner.

4.12.4 Administration

In keeping with the widely-dispersed population in the Northwest Territories, the administration of dental services is quite decentralized. As one of nine Medical Services Branch administrative regions, the NWT region is further subdivided into four administrative zones: (1) Baffin; (2) Keewatin; (3) MacKenzie, and (4) Inuvik.

Zones are responsible for establishing and maintaining the necessary clinical facilities, including equipment and supplies. The one siginficant exception to this administrative practice is that the equipment and supplies for dental therapy clinics are provided through the National School of Dental Therapy in Prince Albert, Saskatchewan.

The Regional Office coordinates the provision of dental services for all zones by negotiating contracts with private practitioners, universities and the Government of the Northwest Territories. Both the recruitment and employment of dental officers and dental therapists are centralized at the regional level. In the absence of zone dental officers, the supervision of dental therapists is provided by the staff of the National School of Dental Therapy. Where contracts exist, this function is delegated partially to contracted personnel.

At the zone and/or regional level, an additional administrative task is the processing of dentists' claims and the payment of fees, as appropriate, on behalf of eligible Indians and Inuit. The budget for all aspects of the dental program is funded from general revenues.

4.12.5 Utilization

There are no conventional utilization data available for the NWT dental program. In 1981, there were a total of 20 658 patient visits, 9 855 restorations were completed, 7 256 extractions performed, 805 dental prosthetic procedures completed, and 16 265 other dental treatments such as periodontal, preventive, endodontic, and surgical procedures. It must be emphasized that total number of patient visits is not the same as the number of individual persons who received treatment through the dental program since many patients would have made multiple visits during the year.

4.12.6 Expenditures

The budgeted expenditure for the Medical Services Branch dental care program in the NWT was approximately $1 450 000 in fiscal year 1981-82. This represents an expenditure of approximately $60 per eligible person. Costs per actual user cannot be determined.

4.13 Yukon Territory Dental Care Programs

The Yukon Territory operates two public dental care programs, one for children and another for the elderly population. The Yukon Children's Dental Program was implemented in 1963. At the present time, this program is administered by the Medical Services Branch of National Health and Welfare, while program expenses are shared between the Yukon Territory and the federal government.

The dental program for the elderly is included in the Yukon Extended Health Care Benefits (EHB) program implemented in 1982 in response to concerns for the welfare of senior citizens in the Territory. The EHB program is administered by the Yukon Health Care Insurance Plan and provides supplementary coverage for registered residents 65 years of age and over and their spouses 60 years of age and over. The EHB program provides for dental care, medical-surgical supplies and equipment, eye examinations and glasses, and home nursing services. The program is similar to the Extended Health Care Benefits program in the Province of Alberta.

4.13.1 Eligibility

The Yukon Children's Dental Program is available to all resident children from pre-school and kingergarten through grade eight. There were approximately 3 300 school children enrolled in this program representing 97 per cent of eligible students. In addition, a further 200 pre-school children were enrolled.

With respect to the EHB program, all Yukon senior citizens are eligible for dental services subject to the following conditions:

(a) the person is a resident of the Yukon;
(b) the person is 65 years old or older; OR is 60 years old or older and married to person age 65 years or older; and
(c) the person has a valid Pharmacare care (a drug benefit plan for senior cizitens).

It is estimated that 1 273 Yukon residents are eligible for extended health care benefits.

4.13.2 Dental Services Covered

The Children's Dental Program provides all basic dental care. Licensed dentists provide an examination and treatment plan annually for each child registered. Dental therapists provide treatment as prescribed in the dentist's treatment plan. Prophylaxis, topical fluoride application, oral hygiene instruction, dental radiographs, amalgam and composite resin restorations, extractions and pit and fissure sealants are all included.

In addition, the program pays for consultations between parents and their family dentist about other treatment a child may require. Consultations may be for any service not covered by the Yukon Children's Dental Program.

With respect to the EHB program, all basic dental services are covered, subject to the following limitations:

(a) a complete denture or reset (including rebase) for an arch shall be paid no more frequently than once in every five years;
(b) a partial denture for an arch shall be paid no more frequently than once in every five years;
(c) a reset (alone) for an arch and denture shall be paid no more frequently than once in every five years;
(d) payments by the program on behalf of any one eligible beneficiary shall not exceed $1 200 for any consecutive two-year period;
(e) gold work must receive prior approval by the Yukon Dental Director.

4.13.3 Providers and Service Settings

Under the Children's Dental Program, diagnosis, treatment planning and consultations are provided by dentists. The bulk of the remaining treatment services are provided by dental therapists in school clinics. Permanent clinics have been constructed in a number of the larger schools in the Yukon. Portable dental equipment is used extensively by the dental therapists to establish temporary clinics in smaller schools.

The dental services under the EHB program are provided by dentists in private dental practice.

4.13.4 Administration

The dental therapists are employed by the Medical Services Branch, Health and Welfare, Canada. However, all other costs for this program are shared between the federal (30 per cent) and Yukon (70 per cent) governments. One dentist and one clerk, employed by the Medical Services Branch, provide the administrative support for the Children's Dental Program.

The dental program for the elderly operates as a publicly-funded, third-party dental payment program. It is wholly administered by the EHB program staff. Those eligible for the program pay no premiums, user charges, co-insurance or deductibles. The program is funded through general revenues.

Claims for payment are generally submitted to the program by dentists who in turn are paid directly. The administrator has the right to refuse payment where services are provided at an excessive cost or are of sub-standard quality.

4.13.5 Utilization

Regrettably, utilization figures under the children's dental program were not available. Similarly, at the time of writing no utilization data were available for the dental portion of the EHB program.

4.13.6 Expenditures

For the children's dental program, expenditures in the fiscal year 1982-83 were $433 900. This represented an estimated $124 per eligible child.

Under the EHB program, dental expenditure data for the 1982-83 fiscal year were not available. For 1983-84 the projected budget was $60 000. This represents an expenditure of approximately $47 per eligible person.

5.0 SURGICAL-DENTAL PAYMENTS UNDER THE MEDICAL CARE PROGRAM

In 1968, Canada's Medical Care Act (1966) was amended to include as a benefit those surgical-dental services provided by dental surgeons where a hospital was required for their proper performance. Since it was considered illogical to cover, for example, certain major maxillo-facial surgery when carried out by physicians but not by dentists, the decision allowed dentists also to claim for such services.

5.1 Provincial Administration with Joint Provincial-Federal Financing

The Medical Care Program is provincially administered, but jointly funded by both federal and provincial governments. The federal contribution is conditional, and requires the province to adhere to the program criteria of universality, comprehensiveness, accessibility, portability and public, non-profit administration (see Section 2.2). Nevertheless, the individual provinces determine which specific surgical-dental services will be covered by the Program. While this will lead to a certain variability across provinces, the general principle holds that if the patient requires hospitalization and the dental surgery is medically necessary, the Medical Care Program will pay for surgical-dental procedures. All dentists are permitted to claim payments under the surgical-dental portion of the Program, although, depending on the province, only between five and 50 per cent of dentists do so.

5.2 Expenditures

Available data show that the aggregate expenditures for surgical-dental services under the Medical Care Program have risen from $8.3 million in 1971-72 to $14.2 million in 1980-81. Table 5.1 provides a breakdown of these expenditures by province. Three points should be emphasized about these expenditures. First, until 1977, the federal government contributed approximately 50 per cent of the monies paid out for all medically necessary services including surgical-dental procedures. Second, the nature of the federal contribution was changed in 1977, with the passage of the Established Programs Financing Act, from cost-sharing with respect to specific services to a block funding formula. One of the results of this change was that provinces were no longer required to submit detailed data for review by the federal government prior to the payment of the federal share. From 1978 onwards, therefore, less detailed data have been available than previously.

A third observation is that the impact of provincial administration becomes clearly visible from the tabulated data. In some cases, the 10-year rise in surgical-dental payments was only 7.1 per cent (Ontario) while in other cases, the increase over the same period was 472.1 per cent (British Columbia). These represent two of the larger provinces in Canada. In the case of several of the less populated provinces, the percentage increases were even greater.

Provincial differences are also accentuated in other ways. Since total payments should be heavily influenced by the provincial population, Table 5.2 displays the surgical-dental payments on a per 1 000 population basis for 1980-81. The data reveal that there is over a 20-fold difference between the smallest and largest per capita disbursements for surgical-dental benefits. This vastly exceeds the range for per capita medical care payments. The explanations for the pattern of provincial surgical-dental payments are not readily apparent. Even such basic considerations as provincial population, the number of oral surgeons, and the number of all other dentists accounts for only a small per cent in the variation of per capita surgical-dental payments among provinces. More pertinent may be the number of dentists in a province actually claiming for surgical-dental benefits on behalf of their patients. However, this merely begs the question of why the relative need to provide surgical-dental services in hospital is so much greater in some provinces than in others. Almost certainly, a partial explanation for the extremely low per capita payments in Alberta and New Brunswick is linked to different administrative considerations that have been invoked in those provinces.

Table 5.1
Surgical-Dental Payments to Dentists Under the Medical Care Program by Province and Year, 1971-72 to 1980-81 ($000)[a,b]

Province	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Alberta	64.7	77.4	94.6	104.4	118.7	134.6	144.2	223.3	201.2	220.5
British Columbia	323.9	406.4	455.6	403.9	797.9	1 042.9	1 142.9	1 342.3	1 467.2	1 853.1
Manitoba	201.2	222.6	260.6	305.3	349.6	379.9	428.4	492.0	507.0	742.0
New Brunswick	2.1	2.6	3.2	3.0	7.9	18.8	18.1	32.5	40.5	49.6
Newfoundland	222.4	240.2	279.2	313.8	342.3	431.7	409.2	427.6	434.4	476.9
Nova Scotia	207.2	251.4	321.7	412.7	544.4	558.9	670.6	884.7	1 029.1	1 309.2
Ontario	4 908.3	5 880.8	5 715.5	6 039.9	6 358.1	4 953.8	3 776.7	4 480.1	4 646.4	5 254.5
Prince Edward Island	8.1	N/A	7.8	23.3	37.8	29.5	24.6	29.4	37.1	41.2
Quebec	2 333.2	3 288.4	2 885.0	1 971.1	3 271.7	3 507.7	4 283.9	4 064.8	3 459.1	3 783.6
Saskatchewan	1.0	21.1	83.3	106.8	149.3	230.8	324.1	450.0	500.0	506.9
Northwest Territories	NIL									
Yukon	—	N/A	9.4	11.8	13.1	15.3	11.2	8.4	7.6	9.0
CANADA (Total)	8 272.1	10 390.9	10 115.9	9 696.0	11 990.8	11 303.9	11 233.9	12 435.1	12 329.6	14 246.5

a. Adapted from the Health Information Division, Health and Welfare Canada, 1981.
b. Based on annual financial reports submitted to Health and Welfare Canada by provincial and territorial medical care plans.

Table 5.2
Surgical-Dental Payments by Province and per 1 000 population, 1980-81

Province	Population 1981	Surgical-Dental Payments ($000)	Surgical-Dental Payments per 1,000 Population ($)
Alberta	2 237 725	220.5	98.6
British Columbia	2 744 470	1 853.1	675.3
Manitoba	1 026 245	742.0	723.2
New Brunswick	696 405	49.6	71.3
Newfoundland	567 680	476.9	839.6
Nova Scotia	847 445	1 309.2	1 545.7
Ontario	8 264 465	5 254.5	635.8
Prince Edward Island	122 510	41.2	336.3
Quebec	6 234 445	3 783.6	606.9
Saskatchewan	968 310	506.9	523.7
Northwest Territories	45 740	—	—
Yukon	23 150	9.0	391.3
CANADA (Total)	24 343 180	14 246.5	585.2

6.0 DENTAL SERVICES FOR SOCIAL ASSISTANCE RECIPIENTS

6.1 The Canada Assistance Plan

This section describes programs which include dental services among the benefits they provide to social assistance recipients. Under the Canada Assistance Plan, provinces and municipalities may design, implement and administer such programs, and, provided they meet certain criteria, may recover a proportion of the program costs from the federal government. These programs are discussed together because of this joint-funding characteristic and because they are designed for similar populations. Section 6.1 reviews the history and policy objectives of the Canada Assistance Plan. The various provincial programs are described individually in subsequent sections.

In July 1966, the Canada Assistance Plan replaced the Federal-Provincial Unemployment Assistance Agreement, in operation since 1955, which had granted 50 per cent sharing of the cost of relief provided by municipalities or provinces. Under the Canada Assistance Plan, the federal government will reimburse 50 per cent of the costs incurred by provinces and municipalities in providing social assistance and welfare services to persons in need, or likely to become in need if they do not receive such services. The major objectives of the Plan are:

Assisting the provinces in developing a comprehensive assistance program for all persons who are in need for whatever cause;

encouraging the provision of adequate levels of assistance which would permit recipients to maintain a decent standard of living;

supporting the development and extension of welfare services which would help prevent and remove the causes and effects of poverty, child neglect and dependence on public assistance;

promoting the provision of adequate levels of institutional care for those who require it.

(Source: Health and Welfare Canada, Canada Assistance Plan Annual Report, 1979-1980, p. 2)

Federal contributions are authorized toward programs in the following categories: general assistance, institutional care, the provision of welfare services, and work activity projects. Dental care may be provided on a province-wide basis under programs of general welfare assistance, and/or on a local basis under discretionary programs which municipalities may offer to persons eligible for social assistance.

An estimated 1 495 600 people were assisted under Canada Assistance Plan-Eligible Programs in 1981-82, including children in care and persons (including children) residing in special care homes. This represents the maximum number of persons potentially eligible to receive at least emergency dental treatment services under programs funded in this way.

Not all provinces have formal province-wide mechanisms providing dental care under their social assistance programs. In some provinces (Prince Edward Island, Nova Scotia, and Newfoundland), dental expenditures for social assistance recipients may be authorized by social service agency case workers on an individual, "as needed" basis. "Needed" services tend to be limited to dental emergencies. Six other provinces operate programs which cover social assistance beneficiaries (and often other specific target populations as well) for a more or less comprehensive range of dental services. Alberta, British Columbia, Manitoba, New Brunswick, Quebec and Saskatchewan all offer dental benefits to social assistance recipients throughout the province. The Province of Ontario provides dental services to certain social assistance recipients (parents and dependent children who are enrolled in the Family Benefits Program) and some Ontario municipalities provide dental services to other social assistance recipients on an ongoing basis.

6.2 Alberta

The Department of Social Services and Community Health sponsors dental services equivalent to those available under the Extended Health Benefits Program for eligible clients. (See Section 4.2 of this report).

6.2.1 Beneficiaries

Persons who receive financial assistance through the Alberta Social Allowance Program, persons who are severely handicapped and being assisted by the Assured Income for the Severely Handicapped Program, and children under 18 years of age, who are wards of the Divison of Social Services or have a primary disability, are eligible to receive necessary dental services.

Beneficiaries under the Income Security and Assured Income plans are issued a cheque each month. They retain the stub of this cheque, which indicates that they are eligible for dental, pharmaceutical, and optical services. Service providers honour this stub as payment in full. Child welfare recipients are issued an identification card which entitles them to obtain necessary services.

Table 6.1 reports the average number of beneficiaries per month in 1981 and 1982.

Table 6.1
Alberta Social Allowance and Guardian Social Allowance Programs
Average Number of Beneficiaries 1980-81 and 1981-82

Year	Average Monthly Caseload	Estimated Number of Dependents	Estimated Total Beneficiaries
1980-81	30 926	31 741	62 667
1981-82	31 566	34 656	66 222

a. Estimates were based on a factor of 1.6 dependents per social allowance program family.
Source: Alberta Social Services and Community Health Annual Report.

6.2.2 Dental Services Covered

Comprehensive basic dental services, including dentures, denture repair and relining, and preparatory orthodontics for children, may be provided for eligible beneficiaries. For the latter service, pre-authorization is required for treatments which cost more than $250. The Alberta Dental Association, which administers this dental program, is authorized to approve treatment plans. There are no other limitations or annual maximums.

6.2.3 Administration

Services are provided by dentists and denturists in private practice. Dentists submit claims for the services provided for Department of Social Service beneficiaries to the Alberta Dental Association, which provides administrative services, including claims payment and pre-authorization of treatment plans. The ADA is paid a fee for these administrative services. Denturists submit their claims directly to the Department of Social Services.

The Department of Social Services negotiates fee agreements with the ADA and the denturists annually. In 1983, dentists were paid 85.7 per cent of the 1983 Alberta Dental Association Fee Guide.

6.2.4 Utilization and Expenditures

As shown in Table 6.2, in fiscal year 1981-82 there were 63 082 claims for dental services for Child Welfare and Social Allowance beneficiaries, or nearly one per beneficiary (0.95). Both the number of beneficiaries and the average expenditure per claim increased from the previous year; the number of beneficiaries increased by 5.7 per cent and the cost per claim increased 19.4 per cent. The average expenditure per beneficiary increased over 20 per cent to $110.44.

Table 6.2
Alberta Social Allowance and Guardian Social Allowance Program
Utilization and Expenditures
1980-81 and 1981-82

Fiscal Year	Expenditures	Average Beneficiaries Per Month	Average Expenditures Per Beneficiary	Number of Claims	Average Expenditure Per Claim
1980-81	$5 420 044	62 677	$ 86.48	58 596	$ 92.50
1981-82	6 966 536	66 222	105.20	63 082	110.44

6.3 British Columbia

Income assistance and certain support services are provided to British Columbians in need by the Ministry of Human Resources under the authority of the Guaranteed Available Income for Need Act (GAIN). Until 1981, all dental services for income assistance recipients were provided through the Health Care Services Division of the Ministry of Human Resources along with medical and optical services, ancillary services for special health needs, and transportation. With the introduction of the Dental Care Plan of British Columbia in January 1981, income assistance recipients became eligible to obtain some basic dental care under that program as well.

6.3.1 Beneficiaries

Persons eligible to receive income assistance include persons who are unemployable or unable to find work, persons temporarily unable to work because of poor health or disability, working persons who do not earn sufficient income to support themselves and their families, single parents with dependent children, handicapped persons, and children in care. The number of people receiving income assistance has increased steadily since the GAIN program was established in 1976; the monthly number of basic income assistance recipients averaged 112 937 in 1976-77 and was 151 089 in December 1982, as shown in Table 6.3.

Table 6.3
British Columbia Ministry of Human Resources
Average Number of Beneficiaries for Basic Dental Care

Year	Income Assistance Recipients	Children In Care	Total Number Eligible
December, 1981	141 487	8 374	147 811
December, 1982	151 809	8 145	159 954

Source: R. Chisholm, Policy Analyst, Ministry of Human Resources, personal communication 13 May 1983.

These people were eligible to obtain basic dental services under the Dental Care Plan of British Columbia as described in Section 4.3.1 of this report. In addition to these regular beneficiaries, some other persons, not normally eligible through the provincial dental plan, obtained dental services on the basis of individual case authorizations issued by the Ministry of Human Resources. The number of these persons, principally transients and other persons receiving short-term income assistance, was not available, but expenditures for this category of beneficiaries are reported separately below.

6.3.2 Dental Services Covered

From January 1981 to September 1982, income assistance recipients were eligible to obtain up to $700 per year in basic dental services through the Dental Care Plan of British Columbia, as described in detail in Section 4.3.2 of this report. After the provincial dental plan was suspended for all other persons, making it simply a program for income assistance recipients, all dental services were again provided through the budget of the Ministry of Human Resources. In addition to the basic dental services previously available under the Dental Care Plan, special dental services including orthodontics could be authorized when they were essential to a client's health. Furthermore, Human Resources District Offices could also authorize emergency treatment for conditions causing pain or infection, and to repair broken dentures, for clients who are not eligible for the provincial plan.

6.3.3 Administration

The Ministry of Human Resources maintains a Health Care Services Division that assures complete health care for eligible income assistance recipients. With the institution of the Dental Care Plan of British Columbia, the Ministry of Human Resources issued an identification card to clients which authorized them to obtain the dental services covered by the provincial plan from participating dentists. Participating dentists submitted claims for payment for these services to the Medical Services Commission, which administered the dental plan. However, the

Ministry of Human Resources Health Care Services continued to authorize expenditures for services beyond the basic dentistry provided under the provincial dental plan and for services for Human Resources clients who were not enrolled in the Dental plan, i.e., transients and persons receiving short-term assistance.

6.3.4 Utilization and Expenditures

During the 23-month period from June 1, 1981 to April 30, 1983, 120 251 income assistance recipients obtained dental services through the provincial dental care plan. For the purpose of estimating utilization, the number of users was arbitrarily divided equally between two periods: June 1981 to May 1982, and June 1982 to April 1983. These figurees and the average monthly number of persons eligible for December 1981 and 1982 (Table 6.3 above) provided a rough estimate of the utilization of dental services by income assistance recipients. Approximately 40 per cent of eligibles received services.

Expenditures for dental services for Human Resources clients through the provincial dental plan were $14 245 813 for the 1982 calendar year, or $89.06 per eligible person as of December 1982. An additional $597 220 was paid for special dentistry beyond those services available to regular beneficiaries under the provincial plan, and for emergency services for clients not eligible for the provincial dental plan. Thus, total expenditures for social assistance recipients came to almost $93 per person eligible.

Table 6.4
Expenditures for Dental Services
For Clients of Human Resources, 1982

Provincial Dental Plan Expenditures	Additional Expenditures	Total Expenditures
$14 245 813	$597 220	$14 843 033

Source: R. Chisholm, Policy Analyst, Ministry of Human Resources, personal communications, 13 May 1983 and 25 October 1983.

It is interesting to compare these expenditures with Human Resources Health Care Services expenditures for dental services prior to the implementation of the provincial dental care plan, presented in Table 6.5. Expenditures for dental services for Human Resources clients, which had remained fairly constant over the previous five years, nearly doubled after the implementation of the provincial dental plan.

Table 6.5
Ministry of Human Resources Health Care Services
Total Expenditures and Expenditures for Dental Services
1976-77 to 1980-81

Year	Dental Services	Total Health Care Services
1976-77	$5 487 320	$34 820 389
1977-78	6 033 887	39 705 844
1978-79	7 905 683	48 915 786
1979-80	8 784 379	59 282 888
1980-81	7 532 995	66 914 022

Source: Province of British Columbia Ministry of Human Resources, Annual Report, 1980-81.

6.4 Manitoba Social Allowance Health Services

6.4.1 Beneficiaries

The Social Allowance Health Services (SAHS) program provides dental and optical services and prescription drugs to persons receiving provincial social assistance if they are deemed to be in need of financial assistance as determined by a "needs" test. Sole-support mothers, the aged, persons who are unemployable due to physical or mental disability, students, children whose parents are dead or unable to support them, persons with dependents in need of special care, and unemployed employable persons in areas of the province where municipal assistance is not available are eligible for provincial social assistance. This program began in July 1960 as the Social Allowances Medicare Program, but with the introduction of provincial medicare, the medical care component of the program was no longer necessary, and the revised program was called the Social Allowance Health Services Program.

Heads of households eligible for the SAHS program are issued a certificate, valid for three months, that entitles them and their dependents to claim any necessary services that are covered by the program. There is no user fee and the service providers are not allowed to charge the client any extra fee.

Table 6.6 presents the average monthly number of heads of households and dependents enrolled in the program from 1979 to 1981. The number of persons enrolled in the SAHS program in December 1982 was 33 538. Total enrollment has remained relatively stable over the years covered by the table, and even as far back as 1969 the average monthly enrollment stood at 32 731.

Table 6.6

Manitoba Social Allowance Health Services Program
Average Monthly Enrollment 1979-1982

Year	Household Heads	Dependents[a]	Combined Beneficiaries
1979[b]	19 688	15 489	35 177
1980	18 872	14 499	33 371
1981	18 566	13 821	32 387
1982[c]	19 023	14 180	33 203

[a] Children, aged 6 to 14, living in school divisions covered by the Manitoba Children's Dental Program, would be eligible to receive dental services under that program. However, children in 18 school divisions, including the major population centres of Winnipeg, Brandon, and Portage LaPrairie, are not covered by the Children's Dental Program and, thus, children of social assistance recipients in these areas would be covered for dental services under the SAHS program.

[b] Figures for 1979 through 1981 were adapted from the Manitoba Department of Community Services and Corrections, Annual Report, 1981.

[c] Estimated from monthly figures for December, 1982.

6.4.2 Dental Services Covered

The SAHS dental program provides for necessary dental care including dentures. Specific procedures are itemized in schedules of fees and services distributed to dentists and dental mechanics by the Department of Community Services and Corrections. Orthodontics is available on a very limited basis, subject to the availability of funds in the annual budget. Orthodontic treatment recommendations in individual cases are reviewed by a special screening committee composed of two orthodontists, two general practitioners, and two representatives of the Department of Community Services and Corrections.

Two schedules, which list dental procedures of different complexity and cost, define the services available from dentists. Persons who present a valid certificate are entitled to the services listed in Schedule A without prior authorization. Restorative treatment listed under Schedule A expected to exceed $250 per treatment plan requires prior authorization, as do all of the services listed in Schedule B. For this reason, Schedule B is designated as the "restricted services" schedule. The following abbreviated listing from these schedules describe the range of services available under this program in 1982-83.

Schedule A

Diagnostic:	Includes examination and single-film radiographs.
Preventive:	Includes prophylaxis and, for children under 18 years of age, topical fluoride.
Restorative:	Includes fillings and stainless steel crowns.
Endodontics:	Pulpotomy, primary tooth only.
Periodontics:	Treatment for acute infections only.
Prosthodontics:	Repairs to dentures.
Oral Surgery:	Extraction of erupted teeth.

Schedule B

Diagnostic:	Complete series of radiographs including bitewings.
Preventive:	Space maintainers.
Restorative:	Porcelain crowns and non-precious metal crowns.
Endodontics:	Root canal treatment for anterior and selected posterior teeth.
Periodontics:	Scaling.
Prosthodontics:	Partial or complete dentures and relining of same.

Requests for treatments classified under Schedule B and, under exceptional circumstances, other items of dental treatment, are considered by an SAHS Dental Review Committee composed of three general dentists, a chairperson, a recording secretary and one dental consultant employed by the government.

Denturists' services were also extended to SAHS program certificate holders and their registered dependents. The fee schedule for denturists is divided into Schedule A and Schedule B services. Schedule A services are limited to repairs to dentures, and require no prior authorization from the program administration. Schedule B includes relines and rebasing of dentures and complete dentures. Schedule B services are restricted; thus prior authorization is required.

6.4.3 Administration

Dental services are provided in the private offices of dentists and dental mechanics. Payment for services is based on fee schedules negotiated at regular intervals with the Manitoba Dental Association and the Manitoba Dental Mechanics Association. The SAHS program distributed schedules of fees and services to members of these professional associations. There are limitations on the frequency with which certain procedures may be billed. Examinations are allowed once in a twelve-month period. Replacement dentures are allowed once in a five-year period. Payment for restorations on particular surfaces will not be made more than once in a six-month period. There are no specified dollar maximums, but for restorative services only the most economical procedures are accepted. Since the Manitoba Children's Dental Program was established in 1976, dentists providing services on referral to children enrolled in that program have been paid at the fee level negotiated for the SAHS program. (See: Manitoba Children's Dental Care Program, Section 4.4.)

6.4.4 Utilization and Expenditures

Expenditures for dental care have been consistently around 30 per cent of total expenditures by the SAHS program. Of the payments for dental care, by far the greatest portion of expenditures is for dentists' services. Table 6.7 presents expenditures for general dental, orthodontic, and denturists' services in 1981 and 1982.

Table 6.7
Manitoba Social Allowance Health Services Program
Dental Expenditures, 1981 and 1982

Year	General Dental Expenditures	Orthodontic Expenditures	Denturists Expenditures	Total
1981	$1 362 437	$40 000	$54 000	$1 456 437
1982	1 691 888	60 000	74 000	1 825 888

Source: Personal communication, U.A. Spangen, Supervisor, Social Allowance Health Service, 6 May 1983.

Table 6.8 presents utilization and expenditure data for the dental component of the SAHS program. The data shown do not include expenditures for orthodontic and denturists' services as no separate utilization data were available for these two categories. For 1981, the table indicates that of the monthly averages 32 387 social allowance recipients, 14 311 (44.2 per cent) utilized some type of dental service. The utilization percentage rose to 47.7 in 1982 when 15 841 of social allowance recipients incurred a dental expenditure under the SAHS program. The table also shows that with respect to 1982, the average cost per person eligible was $50.96, an increase of 21 per cent from 1981 but just 31.8 per cent from 1979. The cost per user in 1981 was $95.20 and rose 12.2 per cent to $106.83 in 1982.

Table 6.8
Manitoba Social Allowance Health Services Program
Dental Services Utilization and Expenditures

Year	Dental Expenditures	Number of Users	Cost per User	Number Eligible	Cost Per Eligible
1979	1 359 900	—	—	35 177	$38.66
1980	1 422 700	—	—	33 371	42.63
1981	1 362 400	14 311	$ 95.20	32 387	42.07
1982	1 691 900	15 841	106.80	33 203	50.96

6.5 New Brunswick Social Assistance Health Services Program

6.5.1 Beneficiaries

Families and individuals in need of financial assistance, children in the care of the government, and persons in institutional care because of age or disability who cannot meet the cost of that care are eligible for social assistance benefits from the New Brunswick Department of Social Services. Heads of households registered with the Department are issued Health Services Identification Cards which entitle holders and their dependents to certain health care services, including dental and optical services as well as pharmaceuticals. Table 6.9 reports the average number of persons receiving social assistance each month and, therefore, eligible for dental care under the health services program.

Table 6.9
New Brunswick Social Assistance Health Services Program
Average Monthly Enrollment, 1980-1983

Year[a]	Household Heads[b]	Dependents	Combined
1980-81[c]	28 278	38 402	66 680
1981-82	28 746	32 837	61 583
1982-83	30 500	38 095[d]	68 595

a. Data are reported for a fiscal year from April 1 through March 31.
b. Designated as "caseload units" by the Department of Social Services.
c. Figures for 1980-81 and 1981-82 are from the Department of Social Services Annual Reports for those years.
d. Estimated from the number of household heads reported by letter from Gerry LeBlanc, Supervisor of Health Services Claims, Department of Social Services, 9 May 1983.

6.5.2 Dental Services Covered

The procedures covered in all dental service categories – diagnostic, restorative, endodontic, periodontic prosthetic, oral surgical, and orthodontic – are strictly limited. For persons 18 years of age and older, payment toward dental services is restricted to prosthetic services and emergency services for pain, infection, or teeth fractured as the result of an accidental injury. For prosthetic services, the Department of Social Services pays 75 per cent of the scheduled fee and the user is obliged to pay the balance.

There is a less-restricted range of services available to persons under 18 years of age which includes diagnostic, preventive, and restorative services in addition to the services allowed for adults over 18. Preventive services in the 1982-83 schedule included prophylaxis and fluoride treatment, the latter for children under 14 years. Restorative services covered were amalgam and composite restorations and preformed stainless steel crowns.

Prior approval is required for treatment plans for which the total fee would exceed $200, as well as for complete mandibular or maxillary extractions, crowns other than stainless steel, all dentures, root canal therapy, and orthodontia. Orthodontics may be approved only for gross functional disability. Orthodontics for esthetic purposes is specifically excluded from the program.

6.5.3 Administration

Dental services are provided to eligible persons by dentists in private practice. A schedule of fees and services i negotiated each year with the New Brunswick Dental Society. Generally, the fees agreed upon have been 90 per cen of the Dental Society's fee guide. Copies of the Health Services Fee Schedule are sent to all dentists in the province

Dentists are not allowed to charge social assistance patients additional fees for services covered in full by the Department of Social Services. However, the Department pays dentists a maximum of 75 per cent of the scheduled fee for new dentures provided to social assistance recipients 18 years of age and older. The remaining 25 per cent is a "participation fee" which dentists may collect from patients. Children in care and recipients under 18 pay no participation fee. Payment for dentures is not allowed more than once in eight years, except in exceptional circumstances.

6.5.4 Utilization and Expenditures

Data are not available to calculate the utilization rate for the dental component of the New Brunswick Social Assistance Health Services Program. Table 6.10 indicates that the average number of services provided per enrolled beneficiary rose 10 per cent, from 1.0 in 1981-82 to 1.1 in 1982-83. At the same time, the average cost per service grew from $15.82 in 1981-82 to $21.19 in 1982-83, an increase of 33.9 per cent. The combined effect of the jump in the number of enrolled beneficiaries, the slightly-increased average number of services per enrolled beneficiary, and the considerable rise in the cost of an average service resulted in a one-year increase of 40.6 per cent in total dental expenditures under the Social Assistance Health Services Program.

Table 6.10
New Brunswick Social Assistance Health Services Program
Utilization and Dental Expenditures, Fiscal 1981 and 1982

Year	Dental Expenditures[a]	Number of Services	Average Cost per Service	Number of Persons Eligible	Cost per Person Eligible
1981-82	$ 950 000	60 065	$15.82	61 583	$15.43
1982-83	1 600 000	75 500	21.19	68 595	23.33

a. Expenditure and service data from G. LeBlanc, Supervisor of Health Services Claims Department of Social Services, letter of May 9, 1983.

It is useful to keep in mind that both the total expenditures as well as the per unit expnditures may be affected by the limitations on dental services allowed for enrolled beneficiaries. This applies to a certain extent to children under 18 years of age and particularly to persons 18 years of age and over. The user fees on dental prostheses would also influence the expenditures pattern. Finally, though no breakdowns of utilization patterns by age of recipient were available, it has been suggested that the greatest share of services provided went to persons under 18 years of age. (For a description of the provincial government's dental services program for children in underserviced, rural areas, see Section 4.5 of this report.)

6.6 Newfoundland and Laborador Social Services

Dental services provided for social service beneficiaries in Newfoundland are very limited. For adults, the only dental service provided is surgical removal of teeth and provision of dentures when medically necessary. The Newfoundland Children's Dental Program (NCDP) provides dental services for all children up to their thirteenth birthday, and extends that coverage for the dependent children of social assistance recipients to the eighteenth birthday, and for orphans and wards of the Director of Child Welfare to the twenty-first birthday. Utilization and expenditure information for the NCDP includes these beneficiaries. (See Section 4.6 of this report.)

In 1981-82, financial assistance was provided each month to an average 19 800 cases (an estimated 48 500 persons) by the Department of Social Services. Expenditure for dental services for these beneficiaries were reportedly quite small, though it was not possible to retrieve the amounts as separate items under the record-keeping system in effect at that time.

6.7 Nova Scotia General Assistance Program

The Province of Nova Scotia has no province-wide program which provides dental treatment for social assistance recipients. The Family Benefits Division of the Department of Social Services administers an income support program for disabled persons and single mothers with children, but it makes no provision for their dental care. However, dentistry for children born after January 1, 1967 is provided through the Nova Scotia Children's Dental Plan (see Section 4.7 of this report). Required dental services for beneficiaries of the Family Benefits Program are considered "special needs" and all expenditures for "special needs" are made through the General Assistance Program administered through the municipalities.

6.7.1 Beneficiaries

The Social Assistance Act authorizes the 66 municipalities of Nova Scotia to provide financial assistance to persons in need under the General Assistance Program. There are no provincial guidelines for the assistance to be paid to individuals. Each municipality develops its own policy, though the province shares the cost of services provided. Municipal social services provide financial assistance to persons in short-term need, or to those whose regular income is insufficient to meet their needs, and may pay the maintenance costs of persons in special care homes as well. Additionally, payments may be made from time to time for "special needs" of these persons such as drugs, medical services not covered by Nova Scotia Medical Services Insurance, essential dental services, funeral and burial costs, services of the Victorian Order of Nurses, transportation, household equipment, repairs and alterations to houses, and expenses incidental to the education of children.

6.7.2 Dental Services Covered

Dental services authorized under the "special needs" designation tend to be limited in scope though the range of services varies from municipality to municipality. In general, payment is authorized for emergency dental treatment. Under certain circumstances, authorization may be given for dental prostheses and other services when these are necessary for reasons of health.

6.7.3 Administration

Persons on general assistance needing dental treatment are required to obtain prior authorization from municipal social services case workers. For anything other than emergency treatment, dentists must provide a treatment plan including a cost estimate for approval by the social service agency. Claims for dental services are submitted to the municipalities. The province and the federal government contribute to the costs of these services through the cost sharing agreements of the Canada Assistance Plan.

6.7.4 Utilization and Expenditures

No data are available that permit the calculation of a true utilization rate for dental services under the General Assistance Program administered by the individual municipalities. Table 6.11 reports total annual expenditures by Nova Scotia Municipalities for dental services in 1981 and 1982. The number of claims reported was the number of

Table 6.11
Nova Scotia Municipalities
Expenditures for Dental Services
Under General Assistance, 1981-82

Year	Expenditures	Average Monthly Caseload[a]	Average Expenditure Per Eligible Case	Number of Claims[b]	Average Expenditure Per Claim
1981	$146 645	7 656	$19.15	1 645	$89.15
1982	139 165[c]	8 180[c]	17.01	1 648	84.44

a. A "caseload unit" represents a family that may consist of one or more persons.
b. Claims are defined as the number of billings made by providers: there could be more than one claim per person or per case.
c. Estimated figure.

billings made by service providers, not the number of households or individuals that received dental services However, assuming only one claim per household, it can be estimated that no more than 20 per cent of eligibl households received services in 1981 and 1982. Although the average monthly caseload increased just over six pe cent from 1981 to 1982, estimated expenditures decreased five per cent.

6.8 Ontario

Dental services are available to social assistance recipients in Ontario through two income maintenanc programs: the province-wide Family Benefits Program, which sponsors dental care for parents and their dependen children who are beneficiaries of the program; and the Supplementary Aid Program of the municipally-administered General Welfare Assistance Program (GWA), which sponsors dental care for singles and couples withou children. In some exceptional situations, GWA recipients and persons who do not receive social assistance but hav annual incomes below a specified amount may also apply for aid toward dental care costs, through Specia Assistance, another GWA program.

6.8.1 Beneficiaries

The Family Benefits Program is sponsored by the Ministry of Community and Social Services, and pays certai dental costs for parents and dependent children who are recipients of a Family Benefits Allowance or a GAINS- Allowance. Adult beneficiaries are primarily sole support mothers and disabled parents with children under 1 years of age. Couples without children and single persons are ineligible for these dental benefits.

In March 1982, the total Family Benefits caseload was 120 061, including 59 211 cases with children eligible fo dental benefits. Of these 59 211 cases, an estimated 4 531 cases included two-parent families. However, 4 745 case were foster children, the majority of whose foster parents were not eligible for dental benefits. Accordingly, th estimated number of eligible adult beneficiaries was approximately 60 000 and the number of child beneficiarie was 101 365.

Supplementary Aid permits the provision of dental benefits to persons in receipt of Family Benefits and othe governmental benefits (primarily Old Age Security). In particular, dental services not provided under the Famil Benefits Assistance Program, e.g., orthodontic treatment, may be covered by Supplementary Aid. In addition couples and single persons who are ineligible for dental benefits under the FBA Program may apply for necessar dental treatment through Supplementary Aid.

Special Assistance permits dental benefits to be provided to persons in receipt of General Assistance as well as t persons who have low incomes but who are not in receipt of social assistance. However, as both Supplementary Ai and Special Assistance are discretionary programs, practices vary from municipality to municipality and information on the total number of persons receiving dental care under General Welfare Assistance is unavailable.

6.8.2 Dental Services Covered

Dependent children enrolled in the Family Benefits Assistance Program are eligible for the following services

— examinations
— X-rays
— prophylaxis and topical fluoride applications
— plastic and amalgam restorations and stainless steel or polycarbonate crowns
— endodontia on permanent anterior and bicuspid teeth
— extractions
— caries and pain control

The parents of children enrolled in the program are entitled to fewer services than are the children; for exampl preventive and endodontic services are not covered. The following services are covered:

— emergency examinations
— X-rays
— plastic and amalgam restorations and stainless steel or polycarbonate crowns
— extractions
— caries and pain control

In cases of exceptional individual need for dental treatment beyond the above guidelines, FBA beneficiarie may be referred to their municipality which may provide for additional dental services through the Supplementar Aid Program, as stated earlier.

6.8.3 Administration

The Ministry of Community and Social Services issues identification cards to FBA clients. Persons seeking dental services present this card to dentists as proof of their eligibility for the FBA Dental Plan. All services are provided by dentists in private practice. The dentists submit claims for services directly to the Ontario Dental Association (ODA), which administers the FBA Dental Plan for a fee (five per cent of claims).

Certain municipalities also have contracts with the ODA for administration of dental benefits provided under their Special Assistance and Supplementary Aid Programs.

The Dental Association's Welfare Trustees prepare and distribute an annual table of benefits and allowances that outlines covered services. Dentists are advised to submit bills for their usual and customary fee, but payment is limited to those published in the table of allowances. The fees in the table of allowances are negotiated between the Ministry and the ODA, and generally have been 90 per cent of the current ODA fee guide. Dentists are not permitted to charge FBA patients any fee for the services authorized in the table of benefits, but may charge patients for additional services not covered by the plan.

6.8.4 Utilization and Expenditures

No data were available to calculate utilization. Gross expenditures for the FBA dental plan for fiscal year 1981-1982 were $6.7 million, which included an administrative fee paid to the ODA of approximately $320 000. Therefore, the expenditure for dental services was approximately $6 380 000 or roughly $40 per person eligible.

6.9 Prince Edward Island

The provincial Department of Social Services has no formal program that provides dental services for social assistance recipients. Basic services confined primarily to emergency treatment and dentures required for good health may be authorized by welfare case workers on an individual basis through the "special needs" component of General Welfare Assistance.

The average number of social assistance recipients in Prince Edward Island was 11,300 in March 1982. No information was available on the number of beneficiaries who obtained dental treatment through the Department of Social Services. However, in the fiscal year 1981-1982 approximately $100 000 was paid for dental services for social assistance recipients.* About one-third of this amount was paid for dentures.

6.10 Quebec

Since January 1976, Quebec has provided dental services for social assistance beneficiaries that are essentially equivalent to those provided through the Quebec Children's Dental Care Program (Section 4.10). Both programs are administered by la Régie de l'assurance maladie du Québec on behalf of the Ministry of Social Affairs.

6.10.1 Beneficiaries

In 1982 approximately 806 872 social assistance recipients were eligible to receive dental services under this program. This represented approximately 12.5 per cent of the population of Quebec. Table 6.12 reports the number eligible each year since 1980.

6.10.2 Dental Services Covered

Social assistance beneficiaries are eligible to receive all services allowed under the Quebec Children's Dental Program (described in Section 4.10.2 of this report), with the exception of topical fluoride applications and endodontics. In addition, beneficiaries 13 years and over retained coverage for restorative services and simple and complex extractions after August 1982, when those services were curtailed by the Quebec Children's Dental Care Program for children over 12 years of age. Scaling of teeth, which is not provided under the children's program, is allowed for beneficiaries 16 years of age and older, as are complete and partial dentures. Claimants for dentures must have been receiving social assistance for at least six months, and the plan allows only one complete or partial denture each five years. Thus, the dental services allowed for social assistance beneficiaries are quite comprehensive.

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* R.G. Romcke, Director of Dental Public Health, Prince Edward Island Department of Health and Social Services. Verbal communication 19 May 1983.

6.10.3 Administration

Social assistance recipients are issued a drug benefit card each month, which entitles them to receive insured dental services, as well as (since 1970) prescription drugs. All services may be provided by dentists, and denturists may provide complete and partial dentures. The large majority of services are provided in private practices, although the program also reimburses for covered services when provided in hospitals and university teaching centres. Dentists and denturists claim reimbursement for services directly from la Régie de l'assurance maladie, according to a schedule of fees negotiated by the Régie.

6.10.4 Utilization and Expenditures

In 1982 $22 934 700 was paid for dental services for 138 391 social assistance beneficiaries. Table 6.12 presents utilization and expenditures under the program from 1980 through 1982. The number of persons eligible increased almost 25 per cent over the period, while the number of users increased slightly more than 30 per cent. The large increase in the number of eligible persons from 1981 to 1982 was a reflection of the rising rate of unemploymen rather than changes in eligibility criteria. The percentage of eligible persons who used dental services remained fairly constant over the three years. The mean number of services provided for users (Table 6.13) also remained essentially unchanged.

Total expenditures for dental services increased 42 per cent from 1980 to 1982, while the average expenditure per user increased 8.5 per cent from almost $153 to nearly $166. The average cost per service (Table 6.13) increased just 6.5 per cent over that time.

Table 6.12
Quebec Dental Services for Social Assistance Beneficiaries
Utilization and Expenditures[a]

Year	Average number eligible	Number of users	Per cent utilization	Expenditures	Expenditure per user
1980	646 155	105 605	16.3	$16 131 025	$152.75
1981	682 859	120 017	17.6	$18 739 161	$156.14
1982	806 872	138 394	17.2	$22 934 700	$165.72

a. Dr. Gilles Pelletier, Conseiller Cadre, Médecine Dentaire, Régie de l'assurance maladie du Québec, personal communication, October 1983.

Table 6.13
Quebec Dental Services for Social Assistance Beneficiaries
Mean Number of Services per User and Cost per Service

Year	Number of services provided[a]	Number of services per user	Average cost per service
1980	732 759	6.9	$22.01
1981	846 504	7.0	$22.14
1982	978 932	7.1	$23.43

a. Data for 1980 and 1981 from Régie de l'assurance maladie du Québec, Statistiques Annuelles, 1981. Services data for 1982 supplied by Dr. G. Pelletier, personal communication, October 1983.

6.11 Saskatchewan Supplementary Health Program

Saskatchewan was the first province to provide a comprehensive health service program for individuals receiving regular social assistance payments. With the initiation of the Social Assistance Medical Care Plan on January 1, 1945, the province insured all social assistance recipients for the costs of authorized health services.

Before the introduction of this program, the costs of health services for persons on social assistance were the responsibility of the municipalities.

6.11.1 Beneficiaries

The descendant of the Social Assistance Medical Care Plan, the Supplementary Health Program, pays the costs of a broad range of health services for persons designated by Saskatchewan Social Services. Individuals may be nominated to this program from four general beneficiary classifications:

1. Saskatchewan Assistance Plan beneficiaries;
2. government wards;
3. inmates of correctional institutions;
4. persons 65 and older residing in certain types of special care homes or long-term care facilities.*

In addition to dental services, this plan pays the costs of a broad range of health services, including: medical services not covered by the Saskatchewan Hospital Service Plan; eyeglasses; many non-formulary drugs not covered by the Saskatchewan Prescription Drug Plan as well as the dispensing fee for formulary drugs covered by the Prescription Drug Plan; and most medical supplies and appliances that may be prescribed by a physician.

Eligibility for the Supplementary Health Program is determined by different criteria for each category of beneficiary. Saskatchewan Assistance Plan beneficiaries are eligible for SHP by virtue of qualifying for social assistance, which is contingent upon an assessment of individual needs. Wards of the government and inmates of correctional institutions are so created by the courts. Beneficiaries under category four qualify for the Supplementary Health Plan on the basis of income level and residence in specified types of care facilities. All children aged four to 15 receive dental services under the Saskatchewan Dental Plan for children (see Section 4.11 of this report).

The average annual number of supplementary health services beneficiaries has decreased over the past five years, although there was a slight increase in 1981-82. Table 6.14 presents the average annual number of beneficiaries from 1977 to 1982.

Table 6.14
Saskatchewan Supplementary Health Program –
Average Monthly Enrollment
1977-78 to 1981-82

Year	Beneficiaries[a]
1977-78	46 344
1978-79	45 623
1979-80	45 283
1980-81	44 701
1981-82	44 863

a. Excludes inmates of correctional institutions. The average monthly number of inmates who received service in 1981-82 was 1 070.

Source: Saskatchewan Health, Annual Report, 1981-82.

6.11.2 Dental Services Covered

Supplementary Health Program beneficiaries are entitled to a comprehensive range of dental services including preventive, restorative, oral surgical, orthodontic, and prosthetic dentistry including dentures provided by either a denturist or a dentist. Authorization is required for certain more expensive services before treatment is begun. Requests for authorization for prosthetics, orthodontics and designated restorative procedures are reviewed by a Dental Advisory Board consisting of three practising dentists (including one orthodontists). Those services which are available to children aged four to fifteen through the Saskatchewan Dental Plan are excluded from payment under the Supplementary Health Program.

6.11.3 Administration

Beneficiaries of the Supplementary Health Program are issued a Supplementary Health Card, which entitles them to receive services under the program in the same manner as a Health Services Card entitles residents to insured hospital and medical services under the Saskatchewan Medical Care Insurance scheme. Beneficiaries may receive routine dental services without charge by presenting their Supplementary Health Card to a participating dentist. There is, however, a charge to beneficiaries for dentures; the maximum in 1981-82 was $15 per single denture or $30 for a complete set. Since January 1, 1980, denturists are also authorized to provide dentures. The user charge for dentures is the same regardless of the category of provider.

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* Category four beneficiaries are people who do not receive social assistance but do qualify for the Supplementary Health Program by income level and residence in certain types of facilities.

The Medical Services Division administers the payment of accounts for dental benefits and the other health services available under the Supplementary Health Program. A schedule of dental services and payments is negotiated at regular intervals with the College of Dental Surgeons of Saskatchewan. The above-mentioned Dental Advisory Board assists the Medical Services Division in adjudicating difficult accounts.

6.11.4 Utilization and Expenditures

No data were available to permit the calculation of a utilization rate for dental services under the Program. Table 6.15 provides an overview of the program's expenditure breakdown; it can be seen that since 1979-80 dental expenditures have accounted for approximately 50 per cent of total program outlays. Table 6.16 gives total as well as average dental care expenditure figures based on costs per enrolled beneficiary and cost per service provided, and shows that the cost of the average dental service provided grew from $18.46 in 1979-80 to $25.95 in 1981-82, an overall increase of 40.6 per cent. Over the same period, the average number of services per enrolled beneficiary declined from 1.11 to 1.05. These two offsetting trends resulted in an overall increase in average expenditure per enrolled beneficiary from $20.47 in 1979-80 to $27.28 in 1981-82, a rise of 33.3 per cent. Unfortunately, comparable data for actual users of the program are not available, but it may be surmised that the change in utilization was not great for the three years in question.

With specific reference to fiscal year 1981-82, it should be noted that out of a total dental expenditure of $1 223 874, the Supplementary Health Program expended $1 158 537 (94.7 per cent) for dental care of social assistance recipients (category one), government wards (category two) and some residents of social care homes (category four). Of the money spent on dental treatment of category one and two beneficiaries, Saskatchewan recovered almost 46 per cent ($527 594) from the federal government under the cost-sharing arrangements of the Canada Assistance Plan.*

Table 6.15
Saskatchewan Supplementary Health Program
Expenditures for Services 1979-80 to 1981-82[a]

Year	Dental Services	Optical Services	Drugs and Appliances	Medical Services[b]	Total Program Expenditures
1979-80	927 138	276 812	626 521	22 932	1 853 403
1980-81	1 060 854	266 196	639 035	50 484	2 016 569
1981-82	1 223 874	355 341	829 489	65 452	2 474 156

a. Adapted from Saskatchewan Health, Annual Report, 1981-82.
b. Medical examinations requested by Saskatchewan Social Services not covered by provincial medical and hospital benefits.

Table 6.16
Saskatchewan Supplementary Health Program
Total and Average Expenditures for Dental Services

Year	Total Dental Expenditures	Number of Persons Enrolled[a]	Avg. Exp. Per Person Enrolled	Number of Services	Avg. Exp per Services
1979-80	$ 927 138	45 283	$20.47	50 214	$18.46
1980-81	1 060 854	44 701	23.73	47 470	22.35
1981-82	1 223 874	44 863	27.28	47 166	25.95

a. Excludes inmates of correctional institutions.

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* The portion of expenditures recoverable under the Canada Assistance Plan falls short of 50 per cent because certain of the dental expenses residents of nursing homes and homes for the mentally retarded are reimbursed under the Established Programs Financing Act. Source Dianne Anderson, Director of Federal-Provincial Arrangements Branch, Saskatchewan Social Services. Letter May 13, 1983.

7.0 GROUP DENTAL PLANS THROUGH THE PRIVATE SECTOR

7.1 Introduction

The first Canadian dental plan, established in 1966 to provide dental coverage for members of the Sheetmetal Workers International Association (SWI), was administered by an organization, the Credit Unions and Cooperatives Health Services Society (CU&C) of British Columbia, already in the business of underwriting hospital and medical services coverage. The dental coverage was appended to the pre-existing medical and surgical coverage of the union's welfare plan. Characteristically, the dental service coverage was a fringe benefit of employment, and enrolment was through work-group affiliation. The coverage negotiated by the SWI was financed by dues from the union's welfare trustfund, to which employers contributed. The amount of the monthly dues was set by CU&C and adjusted on the basis of the claims experience of the plan. The CU&C administrator received claims for dental services from participants and dentists, determined the reimbursement according to a schedule of allowances appended to the contract and the percentage of co-insurance, and paid the claimants. (See Section 2.4).

Dental plans funded through the private sector are a form of group prepayment or insurance plan most often obtained as a fringe benefit of employment. Unionized workers led the way in establishing dental plans for employee groups, and organized labour was initially the major purchaser of prepaid plans. From 1975 to 1982 dental plans were the most rapidly-growing component of employee benefit packages. By 1982, about two-thirds of collective agreements included a provision for dental benefits. Growth in the numbers of these plans and in the extent of coverage they provide has been largely a function of the resources made available for the employee benefit package.

The design of dental plans, and the ways they are administered, funded, and marketed have all developed from patterns established for group hospital and medical expense prepayment and indemnity plans. Initially, these were distinct types of plans which differed in philosophy and function: prepaid plans provided benefits without out-of-pocket expenditure by the user at the time of use, through agreements with service providers to accept direct payments from the prepaid plans; indemnity plans, developed by commercial insurance companies, followed the traditional insurance model – the user paid for services at the time they were received and then claimed reimbursement from the carrier for expenses up to a predetermined amount. The principle of indemnity plans was to subsidize or moderate financial losses rather than to relieve the insured of all expenditures at the time of loss. Modifications to both types of designs have diminished this original distinction, but the two types of organizations which devised these schemes continue as carriers of a variety of group "insurance" plans that include coverage for dental services.

7.2 Data Sources and Limitations

Data on private sector group dental plans reported in this section are based on a 1982 survey of group dental plan carriers, the National Dental Insurance Survey. These data were supplemented by data from secondary sources, as well as interviews with union representatives, employee benefits consultants and dental plan administrators. The decision to gather original data from carriers rather than from plan sponsors (the umbrella organization which sets the boundaries of the group, usually an employer or union) or plan participants (the people enrolled and eligible for benefits), was determined by the type of information desired. Priority was given, first, to accurate information on the number of people enrolled in group dental plans, and second, to the need for information on utilization of and expenditures for dental services through such plans. Other studies of dental insurance had addressed employers, as plan sponsors, or participants, as plan users. Information on the services covered by dental plans, user co-payment provisions, and the price paid for particular types of coverage is most accessible at this individual plan level. However, plan sponsors do not maintain information on the claims submitted and paid under such plans. We expected that carriers, as the agencies which paid dental claims, would be the best source for information on the number of persons covered, utilization of dental services, and expenditures for benefits under such plans.

Preliminary discussions with selected carriers contributed to the design of the National Dental Insurance Survey questionnaire (Appendix II) which addressed four areas.

Enrollment:	The number of and demographic characteristics of persons enrolled in group dental plans.
Dental Services:	The range of services covered, limitations on services, and levels of reimbursement.

Administration: Claims procedures and administrative costs.

Dental Benefits: Utilization of dental services under the plans and expenditures for benefits.

Data were not gathered on the dental coverage included in individual and group health and accident policies, which is limited to services necessitated by accidental injury to natural teeth. This also excluded the sports accident policies sold through many public school boards.

The design of the survey called for the identification of all organizations offering group dental coverage in Canada. Three types of carriers were identified based on historical precedent and manner of incorporation and regulation.

Insurance Companies: Organizations that underwrite health and other types of insurance and that are members of the Canadian Life and Health Insurance Association (CLHIA).

Cooperative and Blue Cross Plans: Companies specializing in hospital and medical coverage that are incorporated as voluntary associations, mutual benefit societies, and cooperatives.

Other organizations which operate programs outside the generally-recognized network of carriers: Direct-service clinics; uninsured, self-funded and self-administered reimbursement schemes; and "third-party administrators" operating uninsured employee benefit plans for employers or unions.

The presentation of data on group dental plans maintains these categories of carriers even though the historical differences between them have been diminished by subsequent developments that will be discussed in Section 7.6 Administration.

Members of the research group contacted representatives of all the carriers identified. In personal interviews the researchers described the objectives of the study, reviewed the questionnaire, and discussed the accessibility of the data being requested. Participation in the survey by the organizations contacted is reported in Table 7.1.

Table 7.1
Private Group Dental Plans
Participation in the Survey by Type of Third-party Payer

Type of Third-party payer	Number in Study Population	Number of Respondents
Insurance Companies[a]	40	36
Cooperatives and Blues[b]	12	8
Other[c]	4	4
Total	56	48

a. Initially 47 companies were identified. Of these, four were deleted because they did not market group dental insurance. Further, three American-based companies offered dental coverage in Canada but were unable to separately identify Canadian data. Hence, 40 companies were available to furnish data. Of these, 36 responded to the survey. In one instance, a Canadian company responded on behalf of its American affiliate as well as for itself.

b. A total of eight Blues and four cooperatives were identified; of these, four Blues responded with sufficient data to be included on the survey. Four out of four cooperatives also responded.

c. Those in the "Other" category were organizations identified during the study that provided third-party dental payment programs outside the generally recognized system of carriers. No systematic effort was undertaken to identify all organizations in this category. However, it is believed that few organizations of significant size were missed.

Almost all the carriers contacted were extremely cooperative, only eight failing to supply any information. However, the record-keeping systems used within the industry were such that the completeness of the information supplied was highly variable. Few carriers had available all the information requested at the level of detail required for this study. For example, carriers quite generally estimate the number of people enrolled in group dental plans. A few maintain a positive enrollment which records the precise number of principal members and dependents; others record only whether a participant is enrolled for single or family coverage. A large proportion of carriers do not maintain even this level of detail, but rather estimate that 75-80 per cent of persons enrolled have family coverage, and project the number of dependents from this number and a family size ratio. The carriers do not use uniform factors to estimate either the number of family enrollments or the number of dependents. Some carriers did not even have ready access to gross enrollment estimates based on the number of principal members, since portions of their business were administered by brokers, large employers, or unions who, although they may maintain their own records of participants, simply remit payments to the carrier based on the amount paid out for claims. In other instances no separate record was kept of Canadians enrolled in dental plans carried by certain Canadian subsidiaries of U.S.-based insurance companies; all records were maintained in the head office and not broken down by nationality. Additionally, an unknown number of Canadians employed by multinational corporations may be covered by plans carried by U.S.-based insurance companies which were not included in the survey. True enrollment is further obscured by an undetermined amount of double counting which results when two or more employed family members participate in different group plans, or when provincial dental care programs provide coverage for dependents of principal members in private plans.

Data on utilization of dental services and expenditures for benefits were maintained at a more precise and detailed level, particularly by those companies which had automated data processing systems. However, these data systems are financial and managerial in their objectives rather than epidemiological or even descriptive. Though detailed information may be on the system, it was not always readily accessible. Those companies with automated claims processing systems currently in place have detailed information on individual files – age, sex, address, dates of dental visits, and procedure code and cost of services provided – but only cost data are regularly accessed on a plan or company-wide basis. Further, carriers clear the claims data from their most accessible (on-line) files after 6-12 months.

This is a time of major transition in claims-processing technology. All carriers indicated that within two to four years claims-processing would be fully automated. One might anticipate that the quantity and quality of information on utilization could change considerably. Although a transitional period in record systems such as the present is an auspicious time to suggest ideal levels of information that might be maintained, the carriers' flexibility may be limited by the fact that many of them purchase packaged claims processing systems which, again, are based on management objectives.

In conclusion, the quality of the data available varied widely between carriers. Those carriers that were unable to provide precise and detailed data we asked to provide estimates, believing that at this initial stage of gathering data, informed estimates from industry sources were to be preferred to no data. However, the often uncertain nature of these data require that interpretation proceed cautiously.

7.3 Persons Eligible for Benefits

The person initially enrolled in a dental plan is termed the "principal member". Dental plans almost universally offer principal members the opportunity to extend coverage to family members, collectively termed "dependents". In general, a family is deemed to consist of a principal member or subscriber to the plan, a spouse, and all dependent children under a specified age, most commonly 21 years. Exceptions to the age limit are made for children over 21 attending school full-time and for handicapped dependents of any age. Certain companies make a lenient interpretation of the spouse category, allowing more than one spouse where there is a legal order to support a separated or divorced spouse.

Enrollment in prepaid dental plans is almost exclusively limited to members of groups. This practice evolved from experience with hospital and medical expense coverage where it was determined that from an actuarial point of view, individuals associated by common employment or some other general purpose not related to obtaining insurance formed a sound basis on which to predict certain risks. Three types of groups have been deemed eligible for group coverage.

1. Common-employer groups composed of people who work for a single firm. The employer may be a corner store with five employees or a multi-national corporation with 5 000 or more employees in several countries.
2. Multiple employer groups composed of either:
   a. Members of one union or professional association who work for more than one employer, but become eligible through membership in their own union or association, or
   b. Employees of members of an association, e.g., a trade association of independent contractors, who become eligible through their employer's membership in a group.
3. Special function groups not related to employment such as church congregations, community organizations, and fraternal orders.

The most common basis of group affiliation is employment, although voluntary organizations and fraternal orders less frequently serve as vehicles of group enrollment.

Though group affiliation is the basis for enrollment, the group need not be a large one.* Carriers reported a total of 31 948 groups enrolled for dental coverage. Table 7.2 presents the distribution of group dental contracts by the size of group covered. Very nearly half of all groups comprised fewer than 25 principal members and almost 60 per cent comprised fewer than 50. Over the years, as carriers have gained experience with group insurance and as competition has encouraged the search for new markets, the minimum size of groups accepted for dental services coverage has decreased so that by 1983 at least one carrier enrolled "groups" as small as two members.

Further eroding the group criterion, in 1982 Manitoba Blue Cross initiated a "Plus Plan" of "total health care benefits" for individual subscribers. The plan covered various health care expenses not provided by the provincial medical care plan, including prescribed drugs and medical appliances, vision care, and basic and major dental services. The plan reimbursed subscribers for 60 per cent of dental expenditures up to a maximum of $300 per person per calendar year. Ontario Blue Cross test had marketed similar coverage a few years earlier, but discontinued it because fewer than 1 000 subscribers enrolled. These innovations and modifications notwithstanding, dental coverage through the private sector tend to be group-based, and most people obtain it through the workplace.

Eligibility tied to participation in the workforce limits principal membership to the employed population, mainly persons aged 20 to 65. Participation in employer-sponsored group dental plans tends to be further restricted to full-time, permanent employees. However, some employers offer a sometimes limited range of benefits to permanent part-time employees after an extended waiting period of one to three years.

Table 7.2

Private Group Dental Plans
Distribution of Contracts by Type
of Third-party Payer and Number of Principal Members Covered[a]

Number of Principal Members per Contract	Number of Contracts						
	Insurance Companies	(per cent)	Cooperatives & Blues	(per cent)	Combined	(per cent)	Cumulative[b] (per cent)
1–4	916	(4)	2 202	(19)	3 118	(9.8)	(9.8)
5–24	8 664	(42)	4 035	(35)	12 699	(39.7)	(49.5)
25–49	2 141	(10)	946	(8)	3 087	(9.7)	(59.2)
50–99	1 461	(7)	667	(6)	2 128	(6.7)	(65.9)
100–249	1 212	(6)	529	(5)	1 741	(5.4)	(71.3)
250–499	546	(3)	239	(2)	785	(2.5)	(73.8)
500–999	301	(1)	86	(1)	387	(1.2)	(75.0)
1 000–4 999	259	(1)	73	(1)	332	(1.0)	(76.0)
5 000+	30	(<1)	8	(<1)	38	(0.1)	(76.1)
Unclassified contracts	5 087	(25)	2 546	(22)	7 633	(23.9)	(100.0)
Total contracts	20 617	(100)	11 331	(100)	31 948	(100.0)	

a. A total of 42 carriers responded: 35 Insurance Companies, 7 Cooperatives & Blues.

b. Although size was specified for only 76.1 per cent of the contracts reported, these in fact represented 98 per cent of principal members covered by the companies that responded to the survey, and 94 per cent of the estimated 3 485 885 principal members of group dental plans in Canada.

Eligibility for employment-based groups usually terminates at the end of the month in which the member ceased to be employed, though there are exceptions. For example, certain unions which represent workers who are irregularly or seasonally employed sponsor benefit plans that allow members to accumulate work points or hours in a "bank" to maintain eligibility over periods of unemployment. As well, these plans permit members to maintain eligibility by directly paying their own dues or premiums. Plans for unionized workers may also include provisions to extend eligibility during strikes or periods when workers are laid off.

A small proportion of employment-based plans extend eligibility to retired participants or continue the eligibility of survivors of deceased principal members. Response to the survey of carriers indicated that less than one per cent of all group dental contracts included such a provision. Almost half the respondents reported no contracts which continue eligibility past the principal member's active participation in the work-force. Of 16 carriers which did report such arrangements, half included this provision in less than five per cent of contracts. More common than continued eligibility for retirees is continued eligibility, often up to two years without payment of any additional premium, for survivors of principal members.

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* Group size is, however, a consideration in the way coverage is priced and in the rates which members pay, as discussed in Section 7.6.2.

It may be however that this is an area where the carriers have incomplete information. Many sponsors, particularly the larger ones, maintain their own records of eligible participants and may continue coverage for retired participants without specifying this arrangement to the carrier. Inasmuch as these larger employers and unions are more likely than smaller organizations to continue retirees in their benefit plans, the survey of carriers would tend to under-report the eligibility of retired persons.

Indeed, some recent surveys directed to employers have indicated that continued eligibility after retirement may be slightly more common than was reported by carriers, at least for some categories of employees. A 1982 survey of 327 Canadian companies in the private sector reported that 14 per cent of employers continued coverage for non-union salaried employees after retirement and 11 per cent continued coverage for survivors of deceased employees in this category.[20] In the public sector, a survey published in July 1983 reported that 22 (17 per cent) of 130 dental plans for salaried public service employees allowed eligibility to continue after retirement, although 15 of those plans required the retiree to pay 100 per cent of the premium.[21] Finally, a survey of 165 Ontario companies reported that eligibility continued for 73 per cent of the retired non-union employees of companies with dental plans, and for 40 per cent of union retirees.[22] It should be noted that in these surveys relatively favoured employees are over-represented. The category "non-unionized salaried employees" includes upper and middle management and professional employees who tend to have the most generous fringe benefits and thus represent an above-average group. One-third of the public service employers were educational institutions, which also suggests that professional employees with above-average fringe benefits would be over-represented. In the case of the Ontario survey, it should be noted that in general the fringe benefits provided by Ontario companies are well above the national average. In summary, these data and interviews with dental plan specialists in the employee compensation field suggests that extending eligibility beyond active employment was not yet a common practice; and that where it does occur, post-retirement eligibility tends most often to be extended to salaried employees in the management and professional categories, and less frequently to unionized workers.

Group eligibility through affiliation that is independent of employment would, of course, also be independent of interruptions in eligibility caused by interruptions in employment.

7.3.1 The Number of Participants

At the beginning of 1982, approximately 8.9 million Canadians were covered by group dental plans through the private sector. This represented 36 per cent of the population. Table 7.2 reviews growth in the enrollment of Canadians in group dental plans from 1970 to December 31, 1981. It can be seen that enrollment grew most rapidly from 1970 to 1974, and that though the rate of increase diminished, growth continued. Though the rate of increase had slowed greatly by 1981 when enrollment increased just 17.3 per cent from 1980, over 1.3 million more Canadians were enrolled in 1981 than in 1980. Preliminary, unpublished data from CLHIA-member companies for 1982 indicated that enrollment by their members grew by approximately the same amount from 1981 to 1982 as between 1980 and 1981.[23]

Table 7.3

Private Group Dental Plans
Growth in Enrollment 1970-81
Persons Enrolled

Year	Insurance Companies	Cooperatives Blues & Other	Combined	Per cent of Canadian Population[a]	Per cent Increase
1970	106 475	137 160	243 635	1.11	—
1972	314 532	340 560	655 092	2.98	168.9
1974	622 601	1 124 471	1 747 072	7.94	166.7
1976	1 396 775	1 605 873	3 002 648	13.06	71.9
1978	2 805 661	2 052 625	4 858 286	21.12	61.8
1980	4 970 199	2 542 419	7 512 618	30.86	54.6
1981	6 251 780	2 619 371	8 871 151	36.20	17.3

a. Percentages for 1970-74 based on 1971 census, for 1976-78 on the 1976 census, and for 1980-81 on the 1981 census.

Sources: Canadian Dental Association, *Dental Health of Canadians*, March 1980; J.L. Leake, Survey of Dental Insurers, 1982 (mimeo); National Survey of Dental Insurance, 1982.

Table 7.4 presents a breakdown of the number of persons enrolled by type of membership (principal or dependent) and type of carrier. Subsequent discussion of the number of people enrolled in group dental plans focusses on the number of principal members, inasmuch as it is the more reliable and available figure. The number of dependents is, in the majority of cases, an estimate derived from the number of principal members, as was described in Section 7.2. For example, the ratio of the number of dependents to the number of principal members derived from data supplied by carriers ranged from 0.02 to 3.0, with a mean dependent-to-principal ratio of 1.54. The most important conclusion to be drawn from these data is that precise recording of the number of people enrolled in group dental plans is not a crucial concern for carriers. The reasons for the lack of concern with basic enrollment data will become clear in the discussion of the way coverage is priced in Section 7.6.2.

Table 7.4
Private Group Dental Plans
Number of Persons Enrolled
by Type of Third-party Payer, December 31, 1981[a]

Third-party Payer	Principal Members	Dependents	Total	Per cent
Insurance Companies[b]	2 529 468	3 722 312	6 251 780	(72)
Cooperatives & Blues[c]	937 991	1 623 066	2 561 057	(27)
Other[d]	18 426	39 888	58 314	(01)
Total	3 485 885	5 385 266	8 871 151	(100)

a. It should be noted that in certain cases the numbers in the table overestimate coverage. This may arise in two-income families and in those provinces which provide publicly-funded dental programs.

b. These numbers underestimate coverage for eleven companies for which the data did not include any persons covered under uninsured, administrative services only (ASO) contracts. Four of these companies reported the existence of ASO contracts, but were unable to report the number of persons covered under these contracts; thus, their number of principal members may be understated by approximately 45 000 and the number of dependents by somewhat more. In addition, no data were available on the extent of ASO coverage for seven other insurance companies. Based on the trends in companies which supplied complete data, coverage for these seven companies might be understated by as much as 7 000 principal members and the number of dependents by somewhat more.

c. These numbers include estimates which we generated for Blue Cross Associations in three provinces from which no data were made available to us.

d. The number of persons reported in this category excludes contracts administered by these organizations but insured by insurance companies, cooperatives, or Blues.

Table 7.5
Private Group Dental Plans
Number of Principal Members[a], by Province[b]
December 31, 1981

Province	Number of Principal Members	Estimated Number Employed[c]	Per cent of Employed Enrolled
Alberta	395 432	1 100 000	35.9
British Columbia	550 891	1 246 000	44.2
Manitoba	133 161	459 000	29.0
New Brunswick	48 047	256 000	18.8
Newfoundland	25 503	184 000	13.9
Nova Scotia	54 130	328 000	16.5
Ontario	1 794 286	4 184 000	42.9
P.E.I.	3 452	48 000	7.2
Quebec	417 160	2 606 000	16.0
Saskatchewan	55 383	433 000	12.8
Yukon & Northwest Territories	8 440	N/A	N/A
Canada	3 485 885	10 844 000	32.1

a. The number of principal members is from the National Dental Insurance Survey, 1982.

b. The distribution of principal members by province was estimated from the distribution reported in the CLHIA Survey of Health Insurance Benefits, 1981, and data from the NDIS, 1982.

c. Labour Canada, Seasonally-adjusted employment estimates, December 1981.

Given that most group dental plans are employment-based, the number of principal members enrolled may be meaningfully compared to the size of the employed labour force. The 3 485 885 principal members represented 32.1 per cent of the estimated 10 844 000 persons employed in December 1981; five years earlier, (December 1976) 14 per cent of the employed labour force was enrolled. Table 7.5, which presents the distribution by province of principal members enrolled in group dental plans at the end of December 1981, reveals considerable regional differences in the proportions of people enrolled. The largest proportions of the employed labour force are covered in British Columbia, Ontario, Alberta, and Manitoba, while the Atlantic provinces, Quebec, and Saskatchewan all fall below the national average.

In surveys conducted by diverse organizatons[24-26] Canadian employers indicated that by 1982, 75-85 per cent of companies offered dental plans. These estimates are clearly too high, resulting from non-random sampling and response bias. This is borne out by Table 7.6 which, moreover, shows that this national average obscures significant regional differences along the lines described in the preceding discussion of the distribution of principal members by province.

Table 7.6
Prevalence by Province of Dental Care Benefit Plans
For Non-unionized Salaried Employees

Province[a]	Number of Companies Surveyed	Per cent Reporting Dental Plan
Alberta	22	100
British Columbia	32	100
Manitoba	7	100
New Brunswick	9	78
Newfoundland	4	25
Nova Scotia	9	44
Ontario	170	89
Quebec	68	76
Saskatchewan	6	67

a. No Prince Edward Island companies were included in the survey.
Source: Adapted from the Wyatt Company, Group Insurance Survey, 1982.

7.4 Dental Services Covered

There are two dimensions to the coverage provided by private group dental plans: the types of dental services for which a plan will pay, and the rate at which a plan will pay for those services. Unlike hospital and medical insurance, which was designed to protect beneficiaries from unexpected and often major expenses, dental plans were designed to defray periodic, relatively predictable costs. The more routine and relatively less expensive dental services, which are necessary for the greatest number of participants, are the most frequently covered and are reimbursed at the highest rate whereas more costly services, which are less generally required, are less often covered and are reimbursed at lower rates. Major surgical-dental procedures requiring a hospital for their proper performance are covered by the provincial health insurance plans.

Group dental plans in the private sector vary greatly in the dental services they cover and the proportion of the charges which they reimburse for different kinds of dental services. Each carrier has what might be termed a "standard" dental plan, particularly for smaller groups. Carriers often require smaller groups, fewer than 50 principal members, to purchase dental coverage in a package of insured services which may include life, accidental death and disability, and extended health insurance. For groups of over 50 principal members, however, there is greater flexibility that leads to considerable variability between contracts in the services covered and the rates at which the expenditures of members are reimbursed. The following discussion points out general trends in coverage and reimbursement practices.

Payments for dental services through group dental plans rarely cover 100 per cent of all dentists' charges, although most plans do cover 100 per cent of basic and preventive services. The amount a group plan pays toward the cost of services is determined by:

(1) the fee schedule used to set the basic allowable fee for an item of service;

(2) the proportion of the fee which the plan will reimburse; and

(3) any maximum total payments allowed for the particular type of service or for each beneficiary.

Many carriers who incorporate a "substitution clause" into dental plan agreements that specifies that wher more than one course of treatment will achieve equivalent results, benefits are calculated on the basis of "the least-costly equivalent service". Participants in group dental plans must bear the cost of the difference between thei dentists' charges and the amount paid by the group plan.

7.4.1 Fee Schedules

The first Canadian dental plans included a table of allowance which specified the maximum fee payable fo each of the covered dental services. A plan sponsor sometimes established this schedule; other plans used schedule established by provincial dental services associations, (e.g. Delta Dental) organizations sponsored by the denta profession for the purpose of promoting and directing the development of group dental plans. Over the years th most common practice has become to specify the maximum allowable fee for a service as the lesser of the dentist' usual and customary fee or the fee stated in a provincial dental association fee guide. This practice simplified th information it was necessary to provide plan participants, since the certificate of coverage simply specified the fe guide to be used. When plans employ provincial association guides, they specify as well the year of the fee guide some automatically adopt the fee guide of the current year, others are pegged for a set period to the guide of a give year. As shown in Table 7.7, during 1981 the majority of plans based benefits on a provincial dental association fe guide of the current year, while less than one-third of plans used a fixed schedule or a provincial dental associatio guide for a year prior to 1981.

Fee-for-service is the predominant arrangement. Officially, the dental profession takes the position that patient should pay the provider for services and then claim reimbursement from the third-party payer. Most group denta plan carriers, however, allow the plan participant and the dental service provider to agree to assign the payment du the participant to the provider. This "assignment of benefits" option reduces the amount a participant must pay a the time services are received, and understandably, is popular with participants. Just over 40 per cent of the claim paid by the carriers responding to the National Dental Insurance Survey were paid directly to dentists. Carrier estimated that they paid anywhere from one per cent, in one case, to 80 per cent in three cases, of claims directly t dentists. Only one carrier did not pay claims directly to dentists.

Table 7.7
Distribution of Private Dental Plans
by Type of Fee Schedule

	Contracts	
Fee Schedule	N	per cent
Usual & Customary Fees	78	0.3
Current Provincial Dental Association	20 300	72.6
Fixed Schedule or Provincial Dental Association Schedule For a Previous Year	7 584	27.1
Total[a]	27 962	100.0

a. Thirty-two companies reporting 78 per cent of the estimated total principal members in Canada.

7.4.2 Reimbursement Rate and Co-payment

In traditional insurance terminology risks were "co-insured", that is, the carrier and the insured shared losse in some specified proportion. This terminology is being adapted to changes taking place in group insurance, an more particularly in dental benefit plans. Since this type of coverage is not deemed to be insurance according t classical insurance principles and since many contracts are no longer actually insured by the carrier (See Sectio 7.6.3), many companies now use "reimbursement level" or "reimbursement percentage" to designate the proportion of allowable charges to be paid by the carrier. Following this trend, we use reimbursement level to designate th proportion of allowable charges paid by a carrier, and co-payment for the proportion of fees unreimbursed by a plan. User charges include this un-reimbursed (or co-paid) portion, any initial deductible, and any amount by which the total claims exceed dollar maximums specified by a group plan.

Most dental plans divide coverage into basic, major and orthodontic categories. Basic services tend to be those necessary for preventive and maintenance care of teeth plus simple fillings and extractions. Major services involve reconstruction of badly-decayed teeth and replacement of missing teeth with fixed or removable prosthetic appliances. This basic and major classification cuts across the restorative and oral surgical categories – ranking amalgam fillings and simple extractions as basic services along with diagnostic and preventive services, for example – while other restorative services such as inlays and crowns, and more complex oral surgery, such as the extraction of impacted wisdom teeth, are classified as major services. Endodontic and periodontic services are sometimes classified as basic and sometimes as major services. The general classification of covered services into basic and major is maintained by many carriers, but there is no consistent pattern as to which specific dental services are included in which category, since assignment of a particular dental service to one category or the other may be decided on the basis of the rate at which charges for that specific service will be reimbursed (which in turn is decided on the basis of the total dollars available to pay for the plan), rather than on the basis of any intrinsic hierarchy of dental services.

Anticipating this variability, the National Dental Insurance Survey classified dental services according to categories and procedure codes used by the Canadian Dental Association. If one or more procedures in a dental service category was covered by a plan, then the plan was counted as covering that category. Thus, Table 7.8 reports the number of plans which cover one or more, but not necessarily all, procedures in the various service categories.

Table 7.8

Private Group Dental Plans
Number of Plans Paying All or Part of Costs
for Specified Categories of Dental Services

Service Category	Insurance Company Plans[a]	(per cent)	Cooperatives & Blue Plans[b]	(per cent)	Combined	(per cent)
Diagnostic	18 245	(100)	8 821	(100)	27 066	(100)
Preventive	18 244	(100)	8 821	(100)	27 065	(100)
Restorative	17 538	(96)	8 720	(99)	26 258	(97)
Endodontics	15 362	(84)	5 370	(61)	20 732	(77)
Periodontics	14 990	(82)	5 397	(61)	20 387	(75)
Prosthetics						
Removable	7 180	(39)	3 457	(39)	10 637	(39)
Fixed	6 596	(36)	1 982	(22)	8 578	(32)
Oral Surgery	15 916	(87)	8 796	(100)	24 712	(91)
Orthodontics	4 242[d]	(30)	1 315	(15)	5 557	(24)

a. Based on twenty-seven companies reporting.
b. Based on six companies reporting.
c. There was in fact, one dental plan that did not provide coverage for preventive services. However, rounding still brought the percentage to 100.
d. Three insurance companies were unable to report the number of contracts with orthodontic coverage, thus the percentages for orthodontics were based on data from 24 respondents with 14 080 contracts.

The minimum definition of a dental plan is one which covers diagnostic and preventive services; though one plan was reported which provided coverage only for diagnostic services. Effectively, all plans cover these basics:

(1) diagnostic services including oral examination, X-rays and specific diagnostic procedures; and
(2) preventive services including dental prophylaxis, topical applications of fluoride, and, often, space maintainers.

Diagnostic and preventive services are usually limited in frequency to twice each 12-month period. These basic services are reimbursed at the highest rate provided in the plan, frequently 100 per cent, and over half (55 per cent) of the plans reported in the survey exempted them from the initial deductible.

Restorative and oral surgical services were next most frequently covered, respectively by 97 per cent and 91 per cent of dental plans. This means that 97 per cent of plans cover at least basic restorative services such as fillings; while the more-costly restorative services such as inlays and crowns would be covered by somewhat fewer plans. However, since over 75 per cent of plans cover endodontics and periodontics, which frequently also are classified among major services, it would appear that the majority of plans provide quite comprehensive coverage, excluding only fixed an removable prosthetics (fixed bridges and dentures), and orthodontics.

Less than 40 per cent of the group dental plans covered dentures, less than one-third covered fixed bridgework and less than one-quarter covered orthodontics. In general, these potentially-costly services are least often include in dental plans, are reimbursed at a lower rate than other services, and are most often subject to special frequenc and cost limitations. Only exceptional plans reimburse claims for prosthetic and orthodontic services at more tha 50 per cent of allowable fees. Routinely, claims for replacement of dentures are limited to a frequency of once ever five years. Also routinely, reimbursement for orthodontic services is limited to a lifetime maximum (most ofte $1 000) that is relatively low compared to the average cost of complete orthodontic treatment.

7.5 Providers and Service Settings

Participants in group dental insurance plans obtain dental services from the dentist of their choice, and, in thos provinces which license them, from denturists as well. Infrequently, a dental plan specifies a designated servic provider, but such plans include an option whereby participants may procure services from other providers afte giving the plan administrator written notice of their intention to do so. Though this is not an issue which th National Dental Insurance Survey investigated systematically, it appears that only union groups have directed th selection of service providers in this way. One such plan advises participants that dental services are to be obtaine through the "dental group office designated in the certificate" unless the participant requires emergency treatmen while outside the geographic area serviced by the designated dental group. A different arrangement has bee devised by the Labourers International Union of North America in Toronto, which has established its own denta clinic. Members of LIUNA have the options to obtain care in the clinic, where comprehensive dental services ar available without user co-payment, or to obtain care in the private dental practice of their choice and be reimburse by an insurance carrier for allowable dental expenditures less an initial annual deductible and a co-paymen percentage.

7.6 Administration

When a scheme is organized whereby someone other than the recipient assumes the responsibility of paying fo a service, a great deal of record keeping and other administrative work is involved. In the operation of such a scheme eligibility criteria and enrollment procedures must be established and implemented, and records maintained of tha enrollment. Premiums or dues must be collected and accumulated by an agent responsible for paying claims fo services. The extent of services covered must be defined. Claims must be received and assessed for validity, th amount of benefits determined, and claimants reimbursed.

Because of the frequency and volume of claims, the administration of group dental plans is a major undertaking. One agency may do the total administration or several different agencies may be involved in the different phase of the administration process. The carrier may handle the total administration, from enrollment to claims payment particularly for smaller groups (5-500 principal members). For some larger groups, eligibility and enrollmen records may be maintained by the plan sponsor as the agency in closest contact with individual participants. In thes cases, the plan sponsor, an employer or union, enrols participants and collects any dues or premiums payable b participants, maintains ongoing records of participants' eligibility status, receives claims from participants, verifie the eligibility of claimants, and then sends the verified claims to the carrier for payment. For employer-sponsore groups, these tasks may be carried out by the personnel department. Some unions retain staff to handle thes administrative aspects even through the claims paying stage. Alternatively, the plan sponsor sometimes delegate these enrollment-related tasks to an outside agency other than the carrier, a "third-party administrator".

The claims paying process also consists of several phases. After it has been verified that a claim is on behalf of a eligible participant, the amount of benefit is determined. As mentioned in the description of coverage, dental plan very rarely cover the full cost of all dental services. It is partly for this reason that carriers commonly have urged pla participants to have the amount of benefit payable toward the cost of any course of treatment determined before th treatment is begun.

Early dental plans often required participants to submit a treatment plan to the carrier prior to receivin treatment and asserted that expenses were not covered unless this was done. For example, the first Canadian dental plan required prior authorization, and the brochure provided to plan members stated that "any amount of expense incurred without the prior submission of a treatment plan form" were excluded from payment if the cost of suc services exceeded $25. Such requirements proved to be both unenforceable and unpopular with dentists, wh viewed such prior authorization as an infringement on their prerogative to determine the treatment of choice.

Over the years, this issue has been resolved with finesse and rephrasing. "Prior-authorization" has been abandoned and "predetermination" is now recommended, not required. The current position of the carriers that recommend it is that through predetermination beneficiaries have the convenience of knowing what expenses they themselves will be responsible for before they commit themselves to a course of treatment. The extent of coverage is being clarified for beneficiaries, not the efficacy of a particular course of treatment. A current brochure provided for plan participants by a major insurance company presents the process as follows:

"In order for you and your dentist to learn in advance how much (the carrier) will pay and how much must be paid by you, it is recommended that a Treatment Plan be filed with (the carrier) whenever the total cost of the proposed dental work is expected to exceed $300. This Treatment Plan identifies coverage and limitations for specific services and clarifies insurance percentages, specific limits and Dental Fee Guide allowances before treatment commences. The Treatment Plan is not intended to limit you in your choice of dentist, to tell you or your dentist what treatment should be performed or to tell the dentist what fee to charge".

Table 7.9
Private Group Dental Plans
Percentage of Contracts Recommending Predetermination
of Benefit by Type of Third-party Payer

Type of Third-party Payer	Number of Contracts Reported[a]	Specified level for Predetermination				No specified level for Predetermination	Predetermination for Orthodontics Only
		>$100	>$200	>$300	>$500		
Insurance Companies[b]	15 230	0.1%	16.7%	65.1%	0.0%	10.4%	7.6%
Cooperative & Blues[c]	11 294	1.4%	1.1%	26.5%	0.0%[d]	64.9%	6.1%

a. A total of 26 524 contracts, representing 83% of the contracts identified in the survey.
b. Twenty-five respondents.
c. Seven respondents.
d. Three contracts were reported with a predetermination level of $500; as a percentage of the whole this rounded to zero.

Table 7.9 reviews the policy vis-a-vis predetermination of benefits as reported in the survey of carriers. Most commonly, dental plans recommended predetermination of benefits for a course of treatment estimated to cost more than $300. There appeared to be a substantial difference between the two types of carriers on this policy; insurance company plans much more frequently recommended predetermination.

The amount a carrier will allow toward dental services depends also upon their generally asserted right to determine allowable payments on the basis of the least-costly equivalent service. This is another policy which requires tactful management with the dental profession.

The changing relationship between third-party payers and the dental profession is worthy of its own history. All carriers retain one or more dentists as consultants to function as liaison officers between the carrier and the dental profession, as well as to review treatment plans submitted for predetermination of benefits and large or unusual claims.

7.6.1 Claims Review Procedures

Claims review procedures have become increasingly sophisticated with the installation of electronic data processing equipment. Such systems allow carriers to maintain individual dental histories which may be checked automatically to determine if services claimed are consistent with a participant's age and dental status; for example, if a filling is allegedly placed in a tooth which was previously claimed as an extraction. In addition to reviewing individual claims records, carriers create individual "provider profiles" compiled from all claims submitted by particular dentists. These profiles are reviewed in the context of patterns or norms established from the carrier's complete claims record.

The action taken in response to detected aberrations range from closer scrutiny of an individual participant's record (for example, where there is a suspicion that a participant creatively edited a claim form completed by a dentist), or a letter to a provider stating that his/her pattern of claims for services differs in specified ways from the pattern of other practitioners, to legal action against plan participants for fraudulent claims or reporting dentists to the local dental association.

The National Dental Insurance Survey gathered data on claims review procedures employed by carriers. Carriers ranked six common procedures according to the frequency with which they were used.

(1) Predetermination of benefits.
(2) Review of post-treatment radiographs.
(3) Review of claims over a specified amount by a dentist, dental hygienist, or certified dental assistant.
(4) Confirmation of adherence to treatment plans.
(5) Provider profile: fee audits or review of treatment pattern.
(6) Examination of patients.

Pre-determination of benefits was the most widely used, almost 60 per cent of carriers ranking it as their mos frequently used method. Review of claims by a dental specialist (dentist, dental hygienist or dental assistant) wa used second most often. Twenty-two of the 32 carriers that responded to this question ranked it among their thre main control mechanisms. Review of post-treatment X-rays and provider profiles were about equally used, but ove one-third of carriers never used these methods. Only five of the 32 carriers ever directly examined patients.

7.6.2 Pricing

There are two risk factors for group dental plans: the need for dental services among the persons enrolled, an the extent to which they actually use dental services. During the first years of writing dental care plans no adequat statistical base existed to predict these factors, and consequently to set premiums. Carriers report that a great deal o money was lost during this period. Out of this initial trial and error approach to pricing, carriers developed thei current pricing practices.

In theory, the price of insured group dental coverage may be set in two ways: from a carrier's "manual" o "book" rates, or from "experience-based" rates. A carrier's rate book sets a price for each unit of coverage, i.e., a pric per level of coverage, per individual in the group. Book rates are based on the assessment of risk factors according t the experience of the actuarial staff. Different companies use different assumptions about these risk factors i developing their book rates, and all are reluctant to discuss them in any detail. In setting a premium from book rates some adjustment may be made for certain characteristics of a group that are presumed to affect the utilization o dental services – the proportion of males to females, the age distribution, the occupation and geographic location o the group, and whether the group is supplied with fluoridated water. Other pricing considerations include th particular fee guide on which payments are based and, in provinces which have one, any coverage provided by provincial dental care program.

Since, even with the accumulated experience of ten years of writing dental coverage, the extent to which particular group will use dental services during a particular time period is not reliably predictable, actuaries plac the greatest confidence in experience rating – setting rates on the basis of the claims experience of that group, that is the total cost of claims submitted for payment during a billing period. A carrier's actuaries identify the 25-30 denta procedures which constitute about 90 per cent of claims expenditures. (The particular mix of dental procedure varies considerably by region of the country.) Experience-based rates are calculated from records of a group's claim for these high frequency procedures, plus the carrier's retained premium for underwiting the claims liability, and percentage of the total claims paid for administrative services. Rates are most often set for one-year periods. Mos groups over 50 principal members are now at least partially experience rated.

For small groups, under 25-50 principal members, carriers set a standard premium for various levels of denta coverage. Companies that market group insurance nationally set province-by-province premiums, which they say reflect the different levels of use made by residents in different provinces and the differences in the cost of dental care The premiums for coverage also reflect provincial differences in publicly-funded dental care programs. Thes standard premiums were explained by representative carriers as being a type of experience rating in the sense that i the long run the price of coverage for these groups is based on the claims experience of all groups covered by th carrier. It is considered that these smaller groups are "pooled" into one larger risk-sharing group.

There is another sense in which small groups are pooled – dental coverage alone may not be marketed to thes groups. It may be contingent upon the purchase of a "package" of group insurance services including extende hospital and medical insurance, accidental death and disability insurance and, often, life insurance. It is essential t recognize that dental coverage, even for largely experience-rated groups, is often priced in a "package" with othe services. Thus, although a price may be stated for each item of coverage, package marketing tends to blur the uniqu price of individual items in the "package". The unit cost of these various items is not easily ascertained, even by carriers.

The exception to package pricing is a practice initiated by certain "third-party administration firms" o tendering for competitive bids in employee group's fringe benefits. These firms, which provide administrativ services* to employers and unions, sometimes offer a client's benefit package for competitive bids, then accept the lowest price proposed for each benefit separately. The consternation which this practice causes group insurance carriers is further evidence that the price attributed to individual items in a benefits package tends to be somewhat arbitrary.

Representatives of many of the commercial insurance companies that entered the dental plan market late reported doing so reluctantly. Their reluctance was based on the belief that dental plans were not "true insurance," and on their lack of actuarial information on which to price such a product. These companies began offering such coverage primarily because their marketing people believed the company's opportunities to market other group insurance products such as life, disability, and extended medical insurance were inhibited by their inability to offer a complete group insurance package which included dental coverage. The advantage of a "complete" package of benefits has also been acknowledged in various affilation agreements formed between two carriers for the purpose of jointly marketing a complete benefits package, one underwriting the life insurance, the other carrying the extended medical, disability, and dental coverage.

7.6.3 Financing

The costs of dental plans may be broken down as follows: the cost of dental services used by participants in the plan, the cost of the administrative services necessary to operate the plan such as enrollment, claims verification, adjudication and payment, the cost of maintaining reserves to pay claims, the cost of taxes, the cost of some margin of profit for the administrative body. Traditionally, a plan purchaser paid a carrier the cost of all these items. However, there has been a shift toward alternative funding of dental and other health benefit plans.

Because there is a low degree of risk in group dental plans as they are currently structured (with procedure frequency limits, annual dollar maximums, and user co-payment for the more elective and expensive services effectively rationing utilization), dental plans are fairly straightforward, 'dollars-in, dollars-out', operations. There is less need to accumulate and retain large reserves for the purpose of meeting some very large but infrequent claims, as is necessary in the case of life or disability insurance. As purchasers of dental plans have come to recognize that the carriers were not actually underwriting a significant risk, since the plan purchaser tended over time to repay the cost of all claims payments made by the carrier for experience-rated plans, they have come to recognize also that it may be unnecessary to pay a premium for risk to an underwriter and a tax on that premium to government. Consequently, there has been a move away from fully-insured plans.

7.6.3.1 Financing Alternatives-Administrative Services Only (ASO). Several alternatives to the traditional carrier-underwritten contract have developed. These range from partially insured to fully self-insured or self-funded plans. Unions led the way in the move toward self-funded plans, in which the sponsor assumes full liability for paying the claims of participants rather than paying a premium to a carrier to underwrite that liability.** The sponsor may maintain the funds reserved to pay claims in a registered trust account and, consequently, also retain the interest accruing on such funds. It has been estimated that a five to ten per cent saving may be achieved through the combination of eliminating the underwriter's retained premium and the taxes on that premium, plus earning investment income on the reserves maintained in a tax-exempt trust.[26]

Alternatively, some employer sponsors have chosen to self-fund benefit plans from operating revenues without maintaining reserves. This option has caused the superintendents of insurance concern since in the absence of a registered trust there is no security for uninsured benefit plans in the event of the bankruptcy of the sponsor.

Actuaries initially postulated 1000 members as the minimum group size for self-funding a dental plan. Now groups as small as 50 are seeking the cost-savings of self-funding through partially-insured plans. Variously known as minimum premium and stop-loss arrangements, these recently-developed funding schemes allow plan sponsors to self-fund up to 90 per cent of benefits expenditures but to maintain the protection against unexpectedly large fluctuations in claims offered by insured plans. With a stop-loss agreement, the carrier assumes liability for claims in excess of a specified amount, thus only this part of the risk is insured. This reduces the amount of reserves the carrier must maintain, and consequently the price the carrier may charge for doing so. This is not yet a common arrangement in Canada. Only three of the 37 carriers that completed this section of the questionnaire reported having stop-loss contracts in 1981.

Fully uninsured or self-funded plans are termed ASO plans because the sponsor contracts for Administrative Services Only. The National Dental Insurance Survey collected data on the extent of ASO funding of group dental contracts. Table 7.10 presents the number of principal members enrolled through dental plans which were financed in this way as of December 31, 1981. Of the nearly 3.5 million principal members of dental plans, just over 15 per cent were enrolled through ASO plans. It is interesting to note that insurance companies had a larger proportion of their principal members enrolled through insured contracts than did the cooperatives, Blues and other carriers. (The 18 426 principal members enrolled in plans administered by "other third-party payers" were uninsured by definition of the plans placed in this category.)

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* Administrative services offered by these firms include maintaining records of employee enrollment, contributions, and eligibility for benefits, and verifying the validity of and sometimes paying claims for benefits. This type of centralized administration, which is not tied to a particular carrier, allows companies purchasing various fringe benefits to shop competitively for different benefits and to switch carriers with little disruption to their enrollment and claims handling routine.

** The sponsor may contract with a carrier or other organization to provide administrative services or in some cases do all administration, including claims processing itself.

The trend toward uninsured group dental plans appears to be well underway. A conservative estimate derived from data presented in Table 7.2 suggests that at least 1.2 million persons were enrolled through groups of 50 or more principal members. These would be the groups for which some form of self-funding might be feasible. Of these 1.2 million, just over 500 000, or approximately one-third, were already in self-funding groups before 1982. The Canadian Life and Health Insurance Association (CLHIA) has reported on the ASO contracts administered by its member companies since 1978. The number of ASO contracts for dental benefits increased from eight in 1978 to 98 in 1982, while benefit payments for these contracts increased from $1 414 000 to $78 515 000 during the same period. The number of principal members covered by ASO contracts increased 66 per cent from 1980 to 1981 while the number of principal members covered by insured contracts increased 14 per cent. The differential rates of growth of the two types of coverage were even more marked from 1981 to 1982 when the CLHIA survey reported a 0.2 per cent decrease in number of principal members covered by insured group dental plans and a 167 per cent increase in enrollment through ASO plans. By the end of 1982, CLHIA member companies reported that over 25 per cent of the total dental coverage they provided was through ASO plans.[27]

Table 7.10
Private Group Dental Plans
Number of Principal Members Covered
Under Un-Insured (ASO) Contracts

Type of Third-party Payer[a]	Number of Principal Members Uninsured ASO	(per cent)	Insured	(per cent)	Combined	(per cent)
Insurance Companies	322 266[b]	(13)	2 207 202	(87)	2 529 468	(100)
Cooperative & Blues	195 890[c]	(21)	742 101	(79)	937 991	(100)
Other	18 426[d]	(100)			18 426	(100)

a. Thirty-seven respondents.

b. Under-reports the number of principal members covered under ASO contracts for four companies which reported the existence of such contracts but were unable to report the number of persons covered. Based on the proportion of members covered by ASO contracts with companies for which data were available, the number of principal members may be understated by as much as 45 000. In addition, no data were available on the extent of ASO coverage provided by seven other companies, which may have been as much as 7 000 principal members.

c. Includes an estimate for one respondent that was unable to report the number of principal members covered under ASO contracts, but did indicate the percentage of total benefits expenditures paid through ASO plans. No data were available for three other companies for which estimated ASO coverage may have been as much as 37 500 principal members.

d. Dental plans which were uninsured and self-administered, or administered by a third party other than an insurance company, cooperative society, or Blue Cross plan.

7.7 Utilization

Claims for benefits under group dental plans are relatively more frequent than for other types of insurance benefit – higher proportions of the covered groups use the services at least once and recurrence is likely. The National Dental Insurance Survey requested information on the number of persons who claimed benefits and the number of claims paid by carriers. Because of diversity in record keeping, it is cautioned that claims are not equivalent to the number of services, visits, or users. A standard claim format approved by the Canadian Dental Association is used by carriers (Appendix IV), which requires completion of forms for individual users. However, carriers sometimes record claims for all family members as one claim under the account of the principal member. Additionally, claims for extensive dental work under one treatment plan may represent more than one visit. The only consistent definition of claims, as reported here, is the number of cheques issued. Thus, reported claims underestimates actual claims.

Fifteen carriers supplied information on the number of claims and the number of persons who claimed benefits. These data represented the experience of 55 per cent of the total reported contracts and 34 per cent of the estimated principal members in Canada. Table 7.11 presents these data. On the average, the carriers paid claims for 75 per cent of the number of persons enrolled in group dental plans. The number of claims represented almost 1.5 for each person who claimed benefits and 1.2 for each person enrolled.

Table 7.11
Private Group Dental Plans
Utilization 1981

Number Enrolled	Number Using	Per cent Utilization	Claims Per User
3 007 944	2 261 554	75.2	1.5

The carriers paid $198 673 500 in benefits for the 2 261 554 persons who submitted claims under these plans, representing $87.85 for each user and $66.05 for each person enrolled. No information was available on the number of services provided under group dental plans, but some impressions about the relative use of different types of dental services may be drawn from the more detailed discussion of benefits expenditures which follows.

7.8 Benefits Expenditures and Premium Income

Thirty-six carriers reported benefits expenditures and premium income for group dental plans enrolling 7 613 085 Canadians (85.8 per cent of the estimated total enrollment). Premium income totalled $549 654 900. Thus, benefits paid were 88.7 per cent of reported premium. See Table 7.12.

Table 7.12
Private Group Dental Plans
Benefits Expenditures and Premium Income, 1981

Number Enrolled	Benefits Expenditures	Premium Income	Benefits Per Person Enrolled	Premium Per Person Enrolled
7 613 085	$487 616 900	$549 645 900	$64.05	$72.20

For CLHIA-member companies, which reported that Canada-wide claims paid were 84.4 per cent of premiums written, the claims to premium ratio varied greatly between provinces, as is shown in Table 7.13. The margin of premiums over claims was greatest in the Yukon and Northwest Territories, Prince Edward Island, Saskatchewan

Table 7.13
Private Group Dental Plans
Ratio of Claims Paid to Premiums Written by Insurance Companies
Canada and Provinces, 1981

Province	Direct Premiums Written	Direct Claims Paid	Claims Ratio
Alberta	$61 237 153	$49 404 888	80.7
British Columbia	59 864 478	52 158 257	87.1
Manitoba	10 875 643	8 755 789	79.8
New Brunswick	3 886 260	2 999 814	77.2
Newfoundland	2 258 967	1 554 617	68.8
Nova Scotia	5 108 878	3 973 529	77.8
Ontario	231 162 835	203 092 326	87.9
Prince Edward Island	346 844	215 907	62.2
Quebec	52 702 353	41 368 879	78.5
Saskatchewan	7 914 660	5 359 334	67.7
Yukon & Northwest Territories	1 471 403	819 070	55.7
Canada Total	440 195 930[a]	371 589 180[b]	84.4

[a] Total Premium includes $3 366 456 unallotted by province.

[b] Total Claims includes $1 886 770 unallotted by province.

Source: Canadian Life and Health Insurance Association, Survey of Health Insurance Benefits in Canada, 1981.

and Newfoundland, and least in Ontario and British Columbia. The reasons for these differences would be a fruitfu question for study. Insurance industry sources have suggested that one reason for the interprovincial variation in th margin of premiums over claims could be differences in the size of the groups that are enrolled – the cost o administering coverage is relatively greater for small groups than for larger groups.

Itemized benefits expenditures were provided by eight carriers for approximately 52 per cent of the tota number of contracts reported to the survey, covering 19 per cent of the estimated total number of principal members Table 7.14 presents a percentage distribution of these benefits by types of dental service.

Table 7.14
Private Group Dental Plans
Distribution of Benefit Expenditures
by Category of Dental Service, 1981[a]

Service Category	Per cent of Benefits Expenditures
Diagnostic	
Exam & Consultation	10
Radiographs	9
Preventive	15
Restorative	36
Endodontics	5
Periodontics	5
Prosthetics, removable	7
Prosthetics, fixed	5
Oral Surgery	4
Orthodontics	3
Other	1

a. Distribution based on response from only eight third-party payors representing approximately 30 per cent of all principal members in group dental plans.

Diagnostic and preventive services together accounted for over one-third of benefits expenditures. Those services plus restorative services comprised 70 per cent of total expenditures. Oral surgery represented a surprisingly small proportion of total expenditures, (four per cent) considering that 100 per cent of the plans for which itemized expenditures were available covered that service. Oral surgical expenditures were also very low compared t expenditures for orthodontic services, which were covered by only 23 per cent of these plans yet accounted for only slightly less of total expenditures than did oral surgery.

8.0 DISCUSSION AND RECOMMENDATIONS

It is difficult for dental professionals and health care policy analysts to satisfactorily resolve the question of just where oral diseases and dental services fit into the total health care system. But, particularly by those with budget responsibilities for health care programs, Canada's oral disease burden is seriously underestimated, perhaps only because the subject is not central to established patterns of medical, hospital and nursing care. With respect to oral disease then, an understanding of the problem and an appreciation of its potential magnitude is an important prerequisite to planning future directions.

There are three reasons to develop better dental health care strategies. The first and perhaps most compelling reason relates to the financial burden that oral diseases and their treatment impose on Canadians. Second, some oral diseases are nearly ubiquitous (e.g., dental caries and peridontal disease) and thereby constitute a vast public health problem. Third, the impact of certain oral diseases on the overall well-being of individuals is becoming increasingly recognized. This is particularly true in the case of severe malocclusion, viral infections, oral cancer, edentulism, etc.

With respect to the financial burden, historical data indicate that Canadians spent $1.23 billion on dentists' services during 1980. Furthermore, the amount of money Canadians spent on dentists' services had grown rapidly during the two preceding decades, both in absolute and relative terms. In 1960, the public paid $109.6 million per year for dental services and by 1970 this had grown to $265.0 million per year, an increase of 142 per cent in the decade. The 1980 annual expenditure was 415 per cent higher than that for 1970.

The relative significance of dental care expenditures has also been increasing. For example, recent data indicate that for every 2.6 dollars spent on all physician services combined, 1.0 dollar is spent on dentist services. In 1970 this ratio had been closer to 4:1. As a proportion of Canadian health expenditures, dental services have grown from 4.24 per cent in 1970 to 5.74 per cent in 1980. As a per cent of the gross national product, dental expenditures stood at 0.31 per cent in 1970 versus 0.43 in 1980.

The magnitude and the rate of growth in Canadian expenditures for oral health services is significant for at least three further reasons. First, the high annual cost is generated only by the 50 per cent of the population which visits a dentist in a given year. If everyone who needed care actually sought and obtained it, annual dental care expenditures, at least in the short to moderate term, would be higher still. Second, the rapid increase in dental expenditures has occurred during a period when the Canadian population has experienced relatively slow growth. Third, the existence of third-party dental payment is by no means universal, with perhaps fewer than 40 per cent of Canadians covered by 1980. However, it is virtually certain that the growth in dental care expenditures during the 1970s is in part explained by the rapid expansion of third-party dental payment programs.

The true cost of oral diseases and their treatment is under-estimated by strict reliance on expenditure figures. In particular, time lost from work, the cost of travel to and from the dentist, waiting time, lost schooling, etc., all add to the nation's dental care bill. It has been estimated that the true cost of dental disease may be 15 to 50 per cent higher than the raw annual dental care expenditure data would indicate.

In relation to population impact, oral diseases, like diseases of the eye or injuries to the limbs, are not life-threatening. While the latter conditions are potentially more debilitating, dental caries, periodontal disease and to some degree malocclusion are far more common. It is this ubiquitous nature of dental disease that gives it such great impact. For example, the 1964 Royal Commission on Health Services determined that oral disease ranked third from the top in expenditures on 21 health problems, being preceded only by mental personality disorders and diseases of the respiratory system.

With respect to dental caries, recent Canadian and American studies have shown that over 90 per cent of 13, 14, and 15-year-old schoolchildren have experienced tooth decay. Root caries, an emerging problem whose impact is magnified by the general aging of the entire population, affects from 40 to over 70 per cent of adults aged 50 years or more. It is rates such as these together with their implication for treatment needs which elevate dental caries to the level of a significant public health concern.

Periodontal disease comprises a number of different yet related conditions which affect the gums and tissues supporting the teeth. Most important are the inflammatory and degenerative diseases such as gingivitis, periodontitis and the less frequent acute necrotizing ulcerative gingivitis. As is the case with caries, the prevalence of periodontal diseases is an age-related event. Various data indicate that among six to 11-year-old children 39 per cent may suffer from gingivitis while among 13-and 14-year-olds the prevalence may be 95 per cent. Although completely reliable data may not yet exist, possibly over 75 per cent of dentate adults suffer from destructive periodontitis. Some have claimed that periodontal disease accounts for more tooth loss in the adult population over 35 years of age than does tooth decay.

Treatment for malocclusion is being sought increasingly by patients of all ages. Unfortunately, relatively littl precise knowledge exists as to the prevalence of malocclusion within the population. In the United States, post-196 studies involving 100 or more 12-18 year olds indicate that malocclusion prevalence estimates range from a low o 46 per cent to a high of 95 per cent. Whichever estimate is taken, this suggests an enormous health problem particularly when the nature and cost of treatment is contemplated. And the financial burden of orthodontic car will almost certainly increase if the present tendency to seek treatment continues to grow among children an adults.

Turning to the impact on personal health, oral diseases hit some people harder than others. Rampant caries abscesses, and pain strike those children whose parents are not properly informed about dental disease, or children who are plainly neglected. Adults who ignore progressing tooth decay in their own mouths will almost certainly fac the need for major extractions and for replacement of lost teeth with dentures. Periodontal disease, in its advanced stages, requires treatment that usually involves frequent, uncomfortable and expensive dental procedures, often including surgery. Advanced, untreated periodontal disease causes embarrassment and emotional discomfort t many. In the middle-aged and elderly population periodontal disease is a major cause of tooth loss.

Malocclusions and other dentofacial anomalies have a greater impact on the individual than most other ora conditions. The psychological impact of cleft lip and palate on both child and parent has been well documented Malocclusion in its varying degrees of intensity also affects the self-image of affected individuals. While too little i known about the subject, two sorts of problems appear to arise – those brought about by the response of others t the patient's condition, and those brought about by the disabled person's concern about his own deformity.

Oral cancer produces the most extreme impact that a dental condition can have on the individual. Predominantly a disease of the elderly, about 75 per cent of oral cancer deaths occur in persons aged 55 years of age and over In North America, oral cancer accounts for three per cent of all cancer. Even when oral cancer does not result in death, the destruction caused by the cancer and the mutilation necessitated by the treatment affect the most sociall interactive, most visible part of the body. As a result, the emotional trauma and psychological harm caused by ora cancer is enormous.

8.1 Dental Care Policy Questions Stemming From The Study

In presenting some public policy considerations that devolve from the present study, we have accepted two assumptions. The first is that access to needed dental care should be equitable for all persons in society. By acceptin this assumption we implicitly acknowledge that dental services possess characteristics which place them closer t medical and educational services than to private services that are traded on the open, competitive market. This doe not mean, however, that the private market has no role to play. Our second assumption is that organized denta programs, whether private or public, have a positive impact on access to and utilization of needed dental care, in tha they lead to higher levels of oral health than would be the case where all individuals or families had to seek and directly purchase their own dental care.

Given this perspective, our study results may be used to focus attention on four major policy questions:

1. If financial considerations preclude the extension of dental care programs to the whole population, wher should future efforts be directed in order to expand eligibility for dental care programs on a more targeted basis
2. Can one discern an emerging rationale for the ranges of dental services that should be covered in various type of dental treatment programs?
3. Is it possible to achieve optimal dental care utilization patterns or targets through the implementation of denta care programs?
4. What are the major factors that appear to influence the expenditures for dental care and how may these factor be appropriately modified?

There are other questions that could be posed; but in most cases the appropriate answers require access to good quality longitudinal data, something that only future studies can provide. Even if additional technical studies are undertaken, it must always be recognized that political consideration will also play a major role in shaping future dental care policy. The history of the medical care program in Canada points clearly to the fact that Canadian healt care policy development has been governed to a great extent by various political considerations.

In the remainder of this chapter we will offer some discussion pertinent to each of the four policy question posed above. By examining the questions separately we hope to gain clarity at the risk of some simplification sinc the questions are, as is inevitably the case, quite interrelated.

8.2 Eligibility For Dental Care Programs

As Chapters Two through Seven indicate, dental care programs are playing an increasing role in meeting the Canadian population's dental care requirements. Our data suggest that as of January 1, 1982 approximately 13.6 million Canadians, or 55.8 per cent of the total population, were eligible for dental treatment through some type of program. (See Table 8.1) These figures do not include preventive and educational programs that are offered through various provincial, municipal or school health departments. So far as we are aware, this is the first time it has been suggested that over 50 per cent of the total Canadian population was eligible for dental care under various types of indirect payment mechanisms. In comparison, only 750 000 Canadians (including treaty Indians and Inuit), approximately 3.5 per cent of the population, were eligible for some sort of dental program in 1970. While this represents 15-fold growth after allowing for the population increase, it should be remembered that most of the expansion occurred from 1974 onward. In essence, the spurt in dental programs growth came about not over seven years, not 12. This was a remarkable development. As will be discussed later, however, there are distinct signs that eligibility for dental programs has peaked and may even have declined slightly.

The figures in Table 8.1 show that as of January 1, 1982, private group dental plans covered 34.1 per cent of Canadians while another 21.7 per cent of Canadians were eligible for public sector programs. Provincial government dental plans covered about 75 per cent of those eligible for public dental programs, and the federal government served the remaining 25 per cent. These data do not include eligibility for the surgical-dental component of the medical care program (all Canadians are covered) nor the coverage under dental accident policies, most of which are part of extended health benefit plans included in fringe benefit packages or sold through public school systems.

Table 8.1
Dental Care Programs In Canada
Number of People Eligible for Benefits
(January 1, 1982)

Type of Program	Number Eligible	Per cent Total Population
Private Sector Group Dental Plans	8 310 000[a]	34.1
Federal Government Dental Care Programs	518 000[b]	2.1
Provincial Government Dental Care Programs	3 294 000	13.5
Social Assistance Dental Care Programs	1 496 000	6.1
Total Number Eligible	13 618 000	55.8
Total Population of Canada	24 343 000	100.0

a. The reported enrollment in group dental plans through the private sector (8 871 000) was adjusted downward by 561 000 to correct for the double counting of children eligible through provincial dental care programs. Some double counting also occurs in this category when families have more than one wage earner enrolled in group plans through the private sector. No adjustment was made for this factor.

b. Excludes dental-surgical benefits under the medical care program (for which the total population is eligible) and dental accident coverage through the private sector.

Where does one go from here? This question is timely and even urgent. Clearly, unlike 15 years ago, there are few who would argue for the establishment of a universal, comprehensive dental care program similar to the medical care program. Years of stagnation in the economy, and the reluctance to increase already high tax burdens, have essentially ruled out a publicly-funded universal dental care program in the near-to-moderate term.

One obvious policy alternative to a universal dental care program is to continue on the present path of unstructured incremental growth in dental care programs, both private and public, so that increasing numbers of Canadians become eligible for one type of program or other. However, this approach overlooks (as must the data presented in our study) the events of 1982, which signalled the possibility that enrollment in dental programs has reached a peak and may now be on the decline. If this is indeed the beginning of a trend, then adopting a status quo policy could translate into a continued decline in eligibility for dental care programs.

8.2.1 Eligibility Changes Since January 1, 1982

Since January 1, 1982, the following changes have occurred which have reduced the number of persons eligible for dental care programs. The province of Prince Edward Island has reduced the age ceiling for its children's dental care program from 16 years to 12 years. This step eliminated nearly a third of the Island's children from eligibility for publicly-funded dental care that they had previously enjoyed. In September 1982, the province of British Columbi eliminated 961 000 persons from eligibility under the B.C. Dental Care Plan; in short, 86 per cent of those eligible fo the plan lost their coverage.

Also in 1982, the Quebec government implemented program changes that disenfranchised several hundre thousand children from dental services for which they had previously been eligible. The Quebec government did no change the age group of children eligible under the dental care program, rather it eliminated whole classes o services such that only 12-year-old children retained their dental coverage as before. Thus children up to 11 years o age are no longer eligible for preventive dental services under this program, while the province's DSCs (regiona health centres) have been allocated additional monies to hire dental hygienists to provide these preventive services It should be noted that the money transferred to the DSCs was less than 20 per cent of what was previously spent o preventive services. Also in many cases the DSCs did not use the monies to hire dental hygienists, purchase th equipment or build the clinics needed to cope with the roughly 800 000 children for the preventive treatments. Fo 13- to 15-year-old children, the program continues to pay for once-a-year examination and preventive denta services, but these children are no longer entitled to fillings or any other restorative work, nor are they covered fo endodontic treatment or simple extractions.

Turning to the private sector, while eligibility has not been reduced, the earlier year to year growth has abated The 1981-82 percentage increase in dental insurance enrollment under CLHIA member companies rose by less tha five per cent. Enrollment in dental programs through Blue Cross affiliated companies and cooperatives is believed t have remained stable, registering little or no increase since 1981. Two factors appear to be responsible for thes occurrences. First, many large employer-employee groups (the natural targets for group dental programs) ha already been enrolled, thus reducing the opportunity to expand in this market. Second, 1981 and 1982 were years o very high unemployment, which tended to reduce the number of principal members and dependents enrolled i group dental plans. Some enrollment increases in private group dental plans can be expected as the unemploymen level drops, but this will occur quite slowly.

Future growth in private group dental plans may also be slowed by another factor. Due to the prolonged perio of economic difficulty experienced by many, workers now returning to the labour force may prefer a larger salar cheque and a smaller fringe benefit package in order to reduce personal debt or to make deferred purchases. Thi tendency may occur in spite of the fact that dental benefits may represent non-taxable income while higher salarie are subject to income taxes at the marginal rate. Given this consideration, any attempt to reintroduce legislation t make employer contributions to group dental care plans a taxable benefit will have undesirable consequences o dental plan enrollment. Not only would governments be signalling their own desire to get out of dental car programs or at least reduce their commitment to them, they would be simultaneously discouraging private initiative limited though it may be, in providing dental care coverage.

In short, the absence of new policy initiatives with respect to dental programs, whether public or private, ma lead to a situation in which little growth in enrollment will occur, or one in which a slow but limited decline i inevitable. This latter situation may have already started, and if true, would be an unfortunate loss in momentum

8.2.2 Strategies For Expanding Dental Care Programs For Targeted Populations

If a universal, comprehensive dental care program is not a viable option at this time, and if a status quo polic will likely lead to little or even negative growth in dental program enrollment, what effective strategies remain open In our view, provincial and federal governments might affirm a policy which commits them to improve access t dental care for Canada's children, the group in society least able to help itself, at highest risk to dental caries an gingivitis, and for whom treatment will have particularly significant long-term benefits. Second, provincial an federal governments should take steps to encourage further growth of group dental care insurance to broade coverage among adults. Third, the private sector should be encouraged to seek ways of marketing group dental plan in provinces with below-average industrial activity. Related to this would be the need to develop means whereb small groups could benefit from the same premiums and benefit structure made available to large groups.

8.3 Coverage of Dental Services

One of the difficult questions any dental treatment program must answer is that of which dental services shoul be included for routine coverage. The data from the present project indicate that there is considerable variability i what programs offer. This suggests that current dental programs are not designed according to well-established basi principles such as the ones governing the medical care program in Canada. The diversity in programs of privat sector is understandable, although it is symptomatic of the limitations in consumer information about desirabl program characteristics. More will be said about this later. The publicly-funded dental programs exhibit considerably less variability. However, according to our findings, public dental programs are rather arbitrary in implementing changes in dental care coverage.

8.3.1 The Dilemma of Fee-For-Service Prevention

A dilemma common to both public and private dental programs is the coverage of preventive dental services. For example, in the Nova Scotia Children's Dental Care Plan, preventive dental services (including preventive orthodontics) consumed 28 per cent of program expenditures. In Quebec, 33 per cent of all program services went to prevention, while in Manitoba the equivalent figures were 27 per cent (public clinic component) and 45 per cent (Manitoba Dental Association component). Among private group dental plans, 15 per cent of benefit expenditures went to prevention, the second largest expense category after restorative dentistry.

If resources were unlimited, prevention's share of the total effort would not be a concern. Since this is not the case, the following questions need careful consideration.

1. Are routine dental prophylaxis and topical fluoride applications cost-effective services when they are: (a) provided to all; (b) carried out by personnel over-trained for the task; and (c) paid for on a fee-for-dentist-service basis?
2. If services such as prophylaxis, topical fluoride application, dental health education and nutrition counselling are not cost-effective when provided annually or semi-annually on a fee-for-dentist-service basis, then does it not follow that significantly curtailing these services would permit the provision of other and more-needed care, would permit expansion of program eligibility or, at the very least, would obviate the types of program cuts experienced in British Columbia, Prince Edward Island, and Quebec?

Proper resolution of these questions is not easy. First of all, it must be admitted that the dental profession is adamant about the need to finance preventive dental services. This is generally good advice which should not be disregarded. Prevention should indeed play a central role in dentistry; but the question is whether paying fee-for-service for it is cost-effective. Second, it must be questioned whether all people need the same mix of preventive services, i.e., all those permitted under the fee schedule. Third, it is undoubtedly true that certain high-risk children might benefit greatly from intensive, chairside, preventive dental procedures as itemized earlier. The dilemma then becomes the identification of those children for whom preventive dental services might legitimately be targeted. Fourth, currently available data on the effectivenes of chairside preventive procedures are generally outdated. They are relevant to an era when dental caries levels were considerably higher than they appear to be today. What current data are available strongly suggest that, with the exception of fissure sealants, most chairside preventive procedures are not cost-effective in preventing dental caries. Ironically, most dental care programs operating in Canada at the present time do not make use of fissure sealants, Prince Edward Island and Saskatchewan being exceptions.

Within the private group dental plans, there appears to be a better balance between the consumption of preventive and curative dental services. Nevertheless, the situation should be closely examined on a contract-by-contract basis. By placing stricter constraints on the provision of preventive services, private group dental plans might be able to offer more extensive coverage of periodontic or orthodontic services, for example, without an appreciable increase in premiums. In this way the patient might be able to obtain more for his premium dollars.

In summary, the reason for dealing with the preventive dental services issue in an explicit, direct manner is three-fold. First, the data suggest that excessive proportions of program expenditures have gone to preventive dental services of questionable value. Second, in response to this same concern, dental program administrators have made two errors. On the one hand they have reduced the allowable frequency of these services, thereby ensuring that what remaining services are provided are even less cost-effective. This is a clear example of the flawed second-best choice argument. On the other hand, program administrators have cut or permitted an erosion of the fees for preventive dental services such that allowable fees are seen as an insult by the profession. This has resulted in a loss of professional goodwill toward the program, and one wonders whether at seven dollars, according to the approved Quebec fee, for a prophylaxis and topical fluoride application, the dentist is really motivated to carry out the procedure to the standard of quality required to do any good at all. Third, when placed under pressure from provincial treasurers, dental program administrators have failed to completely cut out dental services of questionable value and instead have permitted either a reduction in program eligibility (British Columbia and Prince Edward Island) or a cut in demonstrably effective treatment services (for 13-15 year olds in Quebec). In respect to these three points, we would argue that a more effective strategy would be to completely eliminate certain types of preventive dental services from coverage under a fee-for-service basis, then use the monies saved to increase program eligibility or stave off planned reductions, provide a fairer fee for other dental services, and implement more effective public-oriented prevention and dental health education programs. In the final analysis it should always be remembered that dentists are still free to recommend specific preventive dental services to their patients, who in turn are free to accept them at an agreed-upon fee.

8.3.2 Problems With Coverage For X-Ray Services

Turning to diagnostic services, most dental programs seem to be administering these quite well. The data reve that only with respect to the quantity and frequency of X-ray procedures do significant disparities exist or hav appreciable changes occurred. For example, we found that in the dental programs of both the Canadian Forces an the Department of Veterans Affairs over 30 per cent of recorded services were for radiographs. (Judging by the mea number of restorations placed or against the performance of private group dental plans,) it may be worth re examining the criteria employed for deciding to take X-rays in the two programs. It should be pointed out that in th DVA programs, it is the RCMP personnel – the heaviest users of the dentist-of-choice option – who account for th above-average use of X-rays.

Among the children's programs the tendency has been to restrain the use of X-rays. This seems to be pruder and consistent with the evidence that dental caries experience, particularly interproximal decay, has decline among children. It is somewhat surprising, nevertheless, that in Newfoundland an average of 0.47 X-rays are take per treated child whereas in Quebec the equivalent figure is 3.00 X-ray films. While these may be extremes, ther still remain considerable variations in the tendency to prescribe X-rays for patients being treated under the variou children's programs.

8.3.3 Coverage of Restorative Dental Services

In terms of restorative dentistry provided through children's programs, it is noteworthy that in Manitob Newfoundland, Prince Edward Island and Saskatchewan the number of restorations per child treated in 1981-8 was 1.67, 1.27, 1.44, and 1.26 respectively, while the Quebec figure stood at 2.87 – double the number in the othe provinces. While this may not appear to be a significant observation, when multiplied by the hundreds of thousand of treated children involved and then again by the respective fees this figure rapidly escalates into a majo consideration, which might bear further investigation. It seems fairly certain that inherent differences among th provinces in child caries levels cannot account for the pattern observed.

8.3.4 Coverage and Coding Of Simple Extractions

One of the most gratifying outcomes of the provincial children's dental programs is the steady decline observe in the tooth extraction rate. While inter-provincial differences continue to exist, they are beginning to diminis Several programs, particularly those in Prince Edward Island and Saskatchewan, may have reached a point belo which the extraction rate cannot be pushed. In these provinces it appears that a significant proportion of th permanent tooth extractions being carried out is to correct crowding and associated malocclusions. In the future may become desirable to code such extractions in a distinct manner so that the reason for extraction could determined more precisely.

8.3.5 Coverage Under Private Group Dental Plans – A Problem Of Consumer Information

It is more difficult to analyze the dental services provided under private group dental plans. There are two majo inhibiting factors. First, virtually none of the carriers maintain their data files in such a manner as to enable them extract service-specific data in an efficient manner. Second, among the private plans there appears to be considerab less interest in determining the precise service mix being consumed in a given year. As a result, the private carrie have relatively little information as to dental service trends over time. Such reports are prepared for certain of th carriers' clients, but this is far from being a routine matter. From an analyst's perspective, an important consequen is that one is unable to judge the actual impact over time of dental services provided under private third-party dent prepayment.

An additional consideration in examining the service mix provided under group dental plans is that th conditions for payment under the various contracts vary greatly. Thus, although our data indicate that 12 per cent expenditures went for the provision of fixed and removable prosthodontics, it should be recalled that only 32 and 3 per cent, respectively, of all contracts paid for such services. Furthermore, those contracts covering prosthodonti would employ a variety of cost-sharing schemes, making the patient responsible for a portion of the cost of thes services. In a sense, therefore, the figures we report for all but diagnostic and preventive services in Table 7.1 underestimate the true total expenditures incurred by members enrolled in private group dental plans.

At this point it is opportune to take up again the point about consumer information in relation to obtaining a optimal dental plan. It seems to us that consumers, generally employer-employee groups, are not demanding th type of dental plans most suited to their needs. By and large, dental groups are "over-insuring" themselves for sma predictable and affordable dental bills and are not obtaining sufficient coverage for larger, less predictable dent charges. In essence, too many groups pay premiums which cover virtually 100 per cent of preventive services, X-rays, simple extractions, etc., while often leaving periodontal treatment, fixed prosthodontics and orthodontics out of the contract, subject to significant (usually 50 per cent) patient copayment, or subject to unrealistically low benefit ceilings (usually $1 000 to $1 500 in the case of orthodontics).

The result is either one of three things. For the patient with rather routine, minor dental problems, the dental plan will usually pay out less than he has paid in, particularly if the person extends the interval between appointments beyond the usual 6 to 12 months. For the persons who require a 4-unit bridge at a cost of $1 200, many dental plans will only pay 50 per cent. Since a bridge is not an annual occurrence, the person should consider his total expenditures and benefits over a number of years prior to and including the present one. When this is done it is frequently revealed that the sum of premiums, deductibles and copayments nearly match the benefits obtained under the contract. Finally, for the person whose family takes good home care and has very small annual dental bills, the major opportunity to use the dental plan comes when a child needs orthodontic care costing around $3 000. However, given the common benefit ceilings imposed on orthodontic treatment (often $1 000 or $1 500), the principal member will still need to expend $1 500 to $2 000 for treatment. Should the family decide it cannot bear even this reduced expense, then the family has foregone a benefit they have paid for through premiums. Because of the size of copayment involved, this choice seems to be made by a good number of families.

It is important to recognize that in most cases, particularly when the group contains 100 or more members, it is the group and not the carrier that takes the lead in designing the plan. The responsibility for the above-noted situation rests most often with those who purchase the plans. By the same token, there appears to be only a modest amount of sound advice available from the carriers, whose understanding of the genuine dental needs of various groups is generally quite limited. This seems rather surprising to us since one would expect considerable competitive advantages for the carrier who had the fullest appreciation of the client's needs.

8.3.6 Coverage Of Dental Services For Social Assistance Recipients

Turning to dental programs available to social assistance recipients, our data clearly indicate a large discrepancy in the range of dental services covered. Some provinces operate a province-wide system for financing a comprehensive range of services, while other provinces make no such provision, relying instead on local social service agency workers to authorize dental expenditures on an "as needed", case-by-case basis. The latter approach tends to focus on care for dental emergencies. Given the fact that a major share of the financing of social assistance is through the federal government's Canada Assistance Plan, the variations in dental services covered as well as in the conditions for qualifying for dental care are worthy of further study and possibly subsequent action.

A question requiring special attention is that of the tendency for social assistance-linked dental programs to favour the financing of extractions and removable dentures over other, more positive forms of dental treatment. While we are not suggesting that extractions and removable prosthetics be eliminated from coverage, at least copayment levels could be introduced to redress the balance and to encourage greater reliance on care for preserving the natural dentition. This strategy need not even be applied across the board but rather might be focussed on those under, say, fifty years of age. A plan which will pay for a 25-year-old social assistance recipient to obtain extractions and a complete denture but will not pay for restorative services follows a potentially harmful strategy.

8.4 The Utilization of Dental Care Programs

The utilization of dental programs in Canada varies from nearly 100 per cent for members of the Canadian Forces to 30 per cent or less for Indians and Inuit and recipients of social assistance. But within this wide range a dominant utilization pattern is evolving around the 70 to 75 per cent range.

8.4.1 Utilization Of Dental Services Within Public Children's Dental Care Programs

With respect to the various children's dental care programs, a utilization level of 70 per cent or more is now routine when considering children over 3 years of age. Some programs do better such as those in Manitoba, Prince Edward Island and Saskatchewan. A utilization rate of 70 per cent or higher is a significant development for children's dental health status. Although precise data are lacking, dental utilization rates of 50 per cent or less were believed common just 15 years ago. The implementation of school-based programs in Manitoba, Prince Edward Island and Saskatchewan changed this almost overnight. In the pre-payment programs this change has come about more slowly, though unmistakably as Tables 4.16, 4.20, and 4.35 demonstrate. The impact on oral health status has been equally clear, as judged by the decline in tooth extraction and the increase in filled to decayed, missing and filled (F/DMF) tooth ratios. However, and consistent with our earlier discussion on preventive services, there is little evidence that absolute decay, missing and filled surfaces (DMFS) levels have declined significantly due to program efforts.

8.4.2 Utilization Of Dental Services Within Private Group Dental Plans

Turning to other dental programs, it was encouraging to observe that the private group dental plans, with the dominant role they play, have attained an annual utilization level of 75 per cent (Table 7.11). Other, less direct calculations we have made on the complete data base suggest that the utilization rate may be nearer 73 per cent. In any event, this indicates that prepaid dental programs may be quite effective in generating an acceptably high utilization level among a population comprising both adults and children. As positive as these figures are, it must be recognized that the eligible group comprises the employed, the urban, and the slightly more prosperous groups in society. The universal children's programs, on the other hand, cover all people in the selected age range and the utilization statistics therefore include those whose families are unemployed, live in rural areas and are somewhat less well off. Hence, the public and private utilization figures are not established on completely comparable bases.

8.4.3 The Elderly and Dental Care Utilization

Utilization of dental services by the elderly has traditionally been lower than among other age groups. Our data tend to confirm this observation. Specifically, the annual dental utilization rate within Alberta's Extended Health Benefits Program, with the exception of 1980-81, has been consistently between 25 and 30 per cent. Under the dental program operated by the Department of Veteran's Affairs, approximately 37 per cent of veterans obtained one or more dental services in 1982-83. Why are these utilization rates low? The economic barriers argument can be ruled out. Both the Alberta and the DVA programs offer comprehensive, first-dollar coverage and therefore the question of financial access should not be a significant issue, particularly since these two programs have operated for some time now. A more likely influence may be related to attitudinal factors such as a lower value being placed on good oral health and possibly the belief that poor oral health is a normal expectation with aging. To the degree this is valid, and our data do not touch on this subject, such attitudes cohorts of elderly who passed through middle life when greater emphasis was placed on dental health may seek more dental care in order to maintain a higher standard of oral health.

Another factor which may influence dental program use by the elderly relates to program limits on treatment. For example, it is common to find that once the program has paid for a denture, the program will not pay for a replacement for a period of five years. A third factor may relate to lack of awareness or understanding of the dental program by the elderly. This is suggested by the Alberta data in Table 4.2 which showed an unexplained jump in program utilization in 1980-81. Further inquiry revealed that this may have been due to a $200 increase in the 12-month treatment cost ceiling as well as the result of a program-awareness campaign, specifically targeted at the elderly, undertaken by the Alberta Health Care Insurance Plan.

8.4.4 Indians and Inuit – A Special Problem With Dental Care Program Utilization

When examined in the aggregate, dental programs of all types seem to have had a desirable, positive effect on the utilization of dental services. Nevertheless, our data also highlight some areas of concern. One of these is the dental program for Indians and Inuit. The fact that over 350 000 of Canada's native peoples are eligible for a federally-sponsored dental care program while only 30 per cent obtain care in a given year is a situation that requires even more attention than it is currently receiving. As epidemiological data demonstrate and as most physicians and nurses working with native groups know, dental diseases and their consequences are a major health problem for Indians and Inuit. Therefore, a more aggressive approach should be devised to provide community-based prevention and to encourage more effective utilization of dental treatment services. The latter strategy may involve more deployment of increasingly available dental manpower as well as more intensive attention to appropriately-chosen target groups. At the same time, native people themselves must show greater initiative in obtaining the dental care that is rightfully theirs under the existing programs.

8.4.5 Hard Core Non-users Of Dental Care Programs

A second concern gleaned from our findings relates to the strong possibility that even within a generous dental prepayment program there may exist a hard core of non-users. In our view, this subject has received virtually no attention to date but is a question that could be investigated using existing data bases. Our evidence is based on the observation that among the three oldest age cohorts in the Nova Scotia Children's dental care plan, between 25.8

and 28.9 per cent of eligible children, made no use whatsoever of the dental program over a four-year period. (Table 4.22) Particularly for children, this is a potentially-damaging situation. Furthermore, it may not be their own fault but is more likely related to procrastination or inattention by the parent, a behaviour pattern for which the child and not the parent will eventually pay in the form of a neglected dentition.

Before proclaiming that a problem exists, more information should be obtained to determine whether the situation described above is a general one applicable to other programs. If an investigation gave an affirmative response, other questions follow. Is the extent of the problem already changing for the better? Is the problem related to certain dental care system factors such as geographic access to a dentist? Does the child's apparent socio-economic status play a role? Finally, and even more fundamentally, how does non-use of the program affect oral health outcome? In other words, is the dental health of non-users appreciably different from regular dental program users, for example?

8.4.6 Utilization Of Dental Care Programs – What Is An Appropriate Level Anyway?

Finally, we have become increasingly conscious that while utilization rates are of obvious importance and are always of great interest among dental program analysts, there is no consensus about what represents an appropriate utilization level. Because of this, it seems impossible to judge whether a certain program is successful by virtue of attaining its utilization target. At the present time, two notions seem to exist. First, higher program utilization is considered better than lower utilization, almost regardless of other considerations. Second, because utilization is usually expressed in percentage terms, 100 per cent seems to be a commonly embraced, if implicit, ideal. For the program planner such notions may have little relevance.

It would seem desirable for the whole question of utilization targets and their role for dental treatment programs to receive further study by those with responsibility for program policy and management. Until this is done it will be impossible for the program administrator to evaluate whether, say, at 29 per cent, the Alberta Extended Health Benefits Dental Program is reasonably successful in achieving its utilization objective.* Clearly, a 100 per cent utilization goal is not only unattainable given certain prescribed treatment limitations in the program, it is doubtful whether such a goal is even remotely serviceable as an intelligent program objective.

Does the above discussion suggest that the over 96 per cent dental program utilization attained by the Canadian Forces is a suboptimal policy? The point is, nobody knows! Posing the question in terms of more comparable population groups, is 96 per cent utilization by Canadian Forces members better than the 82 per cent utilization by members of the Royal Canadian Mounted Police? If yes, should the latter program undertake steps to improve its record? Again we suggest that to the present there has been insufficient discussion about appropriate utilization objectives to permit any informed response to the above questions.

Another dimension to the question about appropriate utilization is the matter of what is actually provided to the person who has one or more encounters with the dentist. In other words, once the person has become a user is the care obtained appropriate? While this seems more akin to questions of quality of care, it also relates to intensity of utilization which, as observers of the medical care system know, has considerable impact on program cost.

To conclude this section, aggregate dental program utilization has been moving in the right direction, that is to say up. There is some evidence from other studies that this has coincided with an appreciable improvement in oral health status. Certain specific problems were identified. The first related to the low dental care utilization by Canada's Indians and Inuit. The second touched on the question of the existence of continuous non-users of available dental programs. The third concern was more general and focussed on the possible absence of practical, useable dental program utilization targets with which to better manage existing and future programs.

8.5 Dental Care Program Expenditures

Total dental expenditures in Canada have been estimated at $1.4 billion for 1981 rising to $1.6 billion in 1982. Our data show that for 1981, $895 million, or nearly 56 per cent of total dental expenditures flowed through one of the five categories of prepaid dental programs described in this Report. Table 8.2 presents expenditure data by dental program category. The figures show that private group dental plans account for 63 per cent of dental program expenditures. The provincial dental plans ranked second, representing 23 per cent of program outlays. Somewhat surprisingly, dental care for social assistance recipients was the third largest expenditure category, accounting for 6.2 per cent of monies spent. The wholly federal government operated dental programs were responsible for 6.7 per cent of expenditures, and the surgical-dental services under the medical care program accounted for 1.6 per cent.

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* If social equity is the only concern and there are no dental health objectives, the utilization of the dental program would of course recede as an issue. However, even looking at social policy from a broad perspective suggests this to be at least an inefficient principle upon which to base a program.

The total dollar figures in Table 8.2 tend to obscure the fact that dental program expenditures are rather unever across Canada. Thus, over half of private group dental plan expenditures occur in Ontario alone, with Alberta British Columbia and Quebec accounting for a further 40 per cent. This means that less than ten per cent of private group dental plan expenditures occur in the six remaining provinces. The result is that private group dental plar expenditures per enrollee are high in the more populous and industrialized provinces and are consequently below average in the smaller, less industrialized provinces.

8.5.1 Expenditures Per Person Eligible

Table 8.2 also displays expenditure per person eligible for four of the five categories of dental programs. The data indicate that the wholly federal government-operated dental programs expend approximately 50 per cent more pe eligible person than is the case with the other categories. Of course, the difficulty with these figures is that they are influenced by the per cent utilization experienced in each program as well as by the age composition of the enrollec groups. For example, the fact that the provincial programs are less costly than the federal programs is surely due tc the fact that all but one of the provincial dental treatment programs are oriented to children.

Table 8.2
Dental Care Programs in Canada
Expenditures for Dental Services

Type of Program	Expenditures Per Person Eligible[a]	Expenditure (millions)
Private Sector Group Dental Plans[b]	$ 64.00	$561.2
Federal Government Dental Care Programs[c]	116.00	60.0
Provincial Government Dental Care Programs[d]	62.00	203.6
Surgical-Dental Payments Under The Medical Care Program[e]	—	14.2
Social Assistance Dental Programs[f]	37.00	55.5
Total		$894.5

a. Expenditure for all programs except private sector plans and the medical care dental surgical program were calculated from the numbe of persons eligible reported in Table 8.1. The figure for private sector plans is based on the unadjusted number of eligibles reported ir Chapter 7.8. Because the total Canadian population is eligible for surgical-dental benefits under the medical care program, the expenditure per person eligible was less than one dollar.
b. Calendar year 1 January to 31 December, 1981.
c. Fiscal year 1982-83.
d. Fiscal year 1981-82.
e. Fiscal year 1980-81.
f. Fiscal year 1981-82.

Inasmuch as both the private group dental plans and the provincial dental programs are experiencing 70 pe cent plus utilization rates, the expenditures per eligible person may be considered as fairly stable. In other words, i the utilization rose to 80 per cent, perhaps a practical maximum, the expenditures per eligible person would only rise by $8 to $9. This is not the case for the dental care programs for social assistance recipients or the federal program operated on behalf of Indians and Inuit. In these programs utilization levels are low, probably 30 per cent o less, and an increase to just 60 per cent utilization would probably double the current expenditures per eligible person.

8.5.2 Expenditure Substitution Versus Market Expansion

A significant policy question is whether dental program expenditures serve only as a substitute for forme individual, out-of-pocket expenditures or whether they are able, in addition to substitution, to effect a form o expansion of the dental care market. Two types of expansion might be considered. First, persons who previously obtained care may now seek more extensive and, therefore, more costly care. Second, persons who previously obtained care only infrequently might become more regular users of care by virtue of coverage under a dental program. Our data do not permit a careful, technical analysis of this question. Nevertheless, when placed alongside the available dental care utilization data, the notion that dental programs have encouraged more persons to seek care is hard to resist.

Relying on the available longitudinal data from the provincial children's dental care programs, there seems little doubt that the growth in utilization that occurred between 1974 and 1981 was due, in large part, to the availability of prepaid dental programs. If one were to extrapolate the annual percentage increases backwards in time, it becomes clear that the dental programs had a major effect on utilization. Of course, other factors such as the increase in the number of dentists and the increasing level of education among the population also may have played a role. However, the view that dental programs brought significantly more children into the fold of regular dental care users seems valid.

Other evidence, albeit cross-sectional, comes from the dental programs offered to members of the Canadian Forces and the Royal Canadian Mounted Police. It seems most doubtful that the personnel involved would demonstrate dental care utilization rates of 82 per cent or higher if it were not for the availability of comprehensive dental programs. One also wonders whether the estimated 30 per cent of social assistance recipients would avail themselves of $55 million worth of dental care in 1981 if prepaid dental programs did not exist.*

As has been suggested, prepaid dental programs likely lead to another form of increase in care, that associated with more extensive and usually more costly treatment. While this outcome has been criticized, the following points should be noted. First, the additional care received may be a pure substitute of more costly treatment for adequate, less expensive care. However, this is by no means always the case. For example, the person who decides to obtain a fixed bridge to replace a missing tooth, now that a dental plan is available, is seeking to enhance his oral health status rather than solely substituting one type of treatment for another. The elderly individual who, by virtue of coverage under a dental program, obtains a new denture that he previously could not afford is similarly seeking to improve his oral health status. In short, when the point-of-service dental care price drops to zero by virtue of a dental program, there is likely to be both a generally undesirable treatment substitution effect as well as an increase in treatment consumption that may be expected to have a positive effect on oral health status.**

The problem of undesirable treatment substitution seems to be a modest one in Canada, whether in public or private dental care programs. As far as children's programs are concerned, whether direct service programs of fee-for-service payment plans, the scope for undesirable service substitution is relatively limited anyway. As for adults, the indirect evidence generated by the present study does not suggest that the substitution of more expensive forms of care for acceptable, less costly treatment is inevitably a major problem. For example, it may be noted that per person utilization of crown and bridge work is similar among Canadian Forces and RCMP personnel although the former are treated in a direct service program while the latter obtain the majority of treatment from private dentists on a fee-for-service basis. (See Table 3.2 and 3.8.) Similarly, an examination of Table 7.14 does not suggest any aberration in the allocation of private dental plan benefit payments to the various treatment categories.

Overall, then, we view the growth in dental care expenditures due to the introduction of prepaid dental programs as having played a largely positive role on the oral health of the enrolled population. This seems to be true whether the plans are public or private or are of the direct-service or fee-reimbursement type. There appears to be no general superiority in the ability of one type of approach or other to control program costs. It seems that any well-designed dental program must have the built-in capacity to monitor dental care utilization and expenditure patterns on a patient- and provider-specific basis. Almost all Canadian programs are now capable or nearly capable of doing this. With such mechanisms in place, and with the understanding and cooperation of both patients and providers, dental care expenditures should generally be expected to follow an acceptable pattern at the aggregate level.

8.5.3 Private Versus Public Expenditures

There are just two points that should be made under the rubric of private versus public expenditures. First, when it comes to financing health care programs, the issue of public versus private expenditures is often obscured. It is common, for example, to hear that children in certain provinces obtain free dental care. This is an obviously false notion, as the per eligible expenditure figures in Table 8.2 clearly show. All dental care must be paid for and the amount paid appears to be reasonably similar whether private or public approaches are used. However, as has been stated elsewhere, the enrollment burden is often heavier in the case of public programs.

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* Unlike the medical care system which exhibits some evidence of over-treatment, this situation is far from being shared by the dental care system.

** We ignore any changes brought about in the quality of care due to the existence of pre-payment dental programs although a full analysis would take quality effects into account.

Second, although criteria for public intervention into private dental markets have been described*, our data show that these criteria do not take adequate account of certain developments that have occurred with Canadian dental care programs. Two considerations seem particularly evident from the data. One is that the private sector has been much more aggressive in developing and expanding dental prepayment programs. To argue against private dental plans by suggesting that they are imperfect in meeting equity objectives would certainly have deprived many Canadians of dental programs that seem to have been in the public interest.

A more potent observation is that Canadian experience with public dental programs in no way suggests that they are inevitably a good bet to fulfill the criteria referred to earlier. In particular, some public programs have been astoundingly arbitrary in enrollment cutbacks or benefit reductions which have in one way or another disenfranchised people from the benefits they had come to expect through the payment of taxes. As has been indicated elsewhere in this chapter, this has already occurred in three provinces. While the cuts were imposed to meet financial restraint objectives, in no case were the expenditures for the dental programs beyond budgetted expectations. Indeed, the evidence shows clearly that in most instances the constant dollar costs for dental programs had declined significantly since 1974. In other words, the viability and integrity of publicly-funded dental programs are open to question based on Canadian experience, because of a lack of government commitment to such programs.

Of course, people lose their benefits under private programs as well. This may occur because the insured group decides collectively that it no longer wishes a dental plan or because an individual loses his job and with it the access to his dental plan. But in the former case at least, there is an element of consumer choice involved, something not so apparent with the public plans except, perhaps, through the ballot box. Furthermore, when one's eligibility for a private group dental plan ceases, one at least no longer pays the premium. In contrast, while tax increases to finance public health care programs are familiar to most, tax reductions to compensate for cutbacks in public dental programs have as yet not occurred in Canada.

Still, there are powerful arguments favouring public dental programs, most notably their universal enrollment feature (within given age brackets) and the relatively straightforward mechanism of generating the monies with which to operate such programs. Problems of moral hazard and adverse selection are also overcome by universal public programs. Because of these features the continued expansion of publicly-funded children's dental care programs makes a great deal of sense. However, the pursuit of such a strategy will lead to naught if governments remain unwilling to commit themselves to the maintenance of dental programs once they are established. For this reason it seems prudent to remain open-minded about the relative merits of public and private dental plans.

To summarize this section, in 1981 Canadian dental programs accounted for 55 per cent of the total estimated national dental expenditures. Private group dental plans accounted for 63 per cent of all dental program expenditures while provincial dental programs contributed 23 per cent to the total. The cost per eligible person was $64 for private group dental plans, $62 for provincial dental plans, with wholly federally-operated dental programs somewhat higher at $116. Dental program expenditures appear to have brought about a certain measure of market expansion, a generally desirable characteristic. Finally, the Canadian record with private and public expenditures for dental care suggests that more effort should be devoted to financing dental care for children on a public basis while encouraging private group dental plans for working adults and their dependents. However, on the public side this must be accompanied by greater resolve to maintain the long-term viability of dental programs whereas the private sector should pursue mechanisms through which it can increase dental care coverage in the less-industrialized regions of Canada.

8.6 Data Availability

A recurrent problem encountered during many phases of this study was the extraordinary difficulty in obtaining data about the operation of various dental programs. In virtually no case was this due to a lack of cooperation by individuals we contacted, rather the basic data being sought was often not available or not present in the form required to permit even basic statements about program operation or the most rudimentary comparisons of program performance.

At the present time it appears that the provincial dental treatment programs in Alberta, Newfoundland, Nova Scotia, Prince Edward Island, Quebec and Saskatchewan maintain and publish the most detailed statistical data about program operation. For these provinces in particular, good data series are available going back to 1974 or earlier. Manitoba is also developing an improving data base although administrative complexities and lack of universal operation hamper the timely generation of statistics. The remaining provinces generally provide less-detailed data. This is largely due to the fact that these provinces operate limited treatment programs, often on a very decentralized basis.

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* For example, Evans and Williams list the following: (1) the reduction of financial risk resulting from the possibility of illness and need for services; (2) the transfer of wealth from one group in society to another; (3) the level and patterns of utilization of health care services by patients and potential patients in the society; (4) the relative economic efficiency with which the health care services industry responds to the health needs of society, both by supplying the appropriate services and by producing them at minimum cost.[28]

When statistical data on provincial programs are incomplete, the most common gaps are: no precise figure on number of eligible persons in a given year, by age or sex; no precise figure on the number of persons utilizing the dental program in a given year; no precise count on the number of specific services consumed; and no precise figure on total program expenditure nor expenditures by treatment category. Lack of such data makes program management and program evaluation difficult, which should be a concern given the amounts of money at stake each year.

The federal dental programs also present special data problems. The Canadian Forces have a data gathering system that is unique to its own needs and it makes the abstraction of certain information quite difficult or requires the use of various assumptions. The Department of Veterans Affairs has recently upgraded its data gathering system but the data for the present report relied on the old system, which had some obvious deficiencies. For example, it did not provide a count of distinct users and therefore utilization estimates were approximate. The Correctional Service of Canada accumulates a limited amount of information about the eligible patient population but cannot discern the precise number of users of dental services within the federal penal system. Furthermore, there is no way to determine the quantities of various types of dental services provided within the Correctional Service of Canada institutions. Finally, there are virtually no data available on the various aspects of dental program utilization by Indians and Inuit. As a result, most statistical data relating to this program are rough estimates. Three of the four wholly federal government-operated dental programs shared one common characteristic – none of them was able to provide exact expenditure data except for the Canadian Forces (See table 3.3). All three others relied on prospective budget estimates. Not only is this surprising in view of the over $50 million expenditures by the federal government, it also shows a lesser interest in data for program management than is shown by many smaller provincial dental programs. Perhaps most striking of all to the researchers was the absence of any effort to consult among the four federal dental programs to see what commonalities exist in terms of statistical data gathering and reporting. Nevertheless, it should be noted that because each of the federal dental services has a separate and unique patient-commitment with different objectives and types of service, there is an opinion among some federal officials that no greater benefit would be derived from closer consultation.

Of great concern, considering the magnitude of the collective programs, is the lack of consistent data collection by the dental plans for social assistance recipients. While the average eligible population in a given year is generally known, even this is not always the case. The number of users and the number and types of services consumed are even less often reported. The province of Quebec is a noticeable exception to this. This is made possible by Quebec's decision to use the Régie de l'assurance-maladie to administer the program, which assures the use of essentially the same claim form, the same types of service codes and virtually the same computer software as for its larger children's dental program.

The greatest problem, however, rests with obtaining data on private group dental plans. Here the number and diversity of carriers, their varying progress in computerization, and above all, the different objectives related to data gathering in the private sector make consistent, detailed statistical information difficult to come by. The reader can verify this by observing the various sample sizes employed in generating the tables in Chapter 7. Except for eligibility, premiums collected and benefits paid, virtually no longitudinal data exist from which to develop a sense of performance by the private group dental plans.

8.7 Recommendations

Enrollment in Dental Care Programs

1. In order to safeguard the significant gains made in dental program enrollment between 1970 and 1981 as well as to avoid the erosion which appears to have taken place since 1982, governments at both the federal and provincial level are urged to commit themselves to the principle of encouraging continued expansion in dental care programs.

2. Since universal and comprehensive prepaid dental care for the whole population does not seem economically feasible in the near to moderate term, policies should be formulated which will encourage dental program development for specific target populations. The choice of targets should be influenced by considerations such as susceptibility to dental disease, inadequate access to care, priority for primary and secondary over tertiary care, social equity, and cost-effectiveness.

3. Consistent with recommendation 2, universal, comprehensive children's dental care programs should be expanded throughout Canada. Insofar that only publicly-financed programs can assure universal eligibility, provincial governments should become particularly sensitive to the need for such programs.

4. Due to the current success of private group dental programs in enrolling large numbers of Canadians, every effort should be made to build on this model with the objective of making such plans available to the less populated, less industrialized regions of Canada. Increased availability of private group dental plans implies the need to be more imaginative in the structuring of eligible groups as well as in the offering of premiums that are price competitive with those offered to larger, established employee-employer groups.

5. Greater efforts should be made to establish comprehensive dental programs which will enroll the relatively small number of persons with special needs such as the mentally and/or physically handicapped, cleft lip/cleft palate cases, orphans, etc. Model programs of this type are already functioning in Nova Scotia, Alberta and Ontario.

Coverage of Dental Services

6. Where dental treatment program resources are limited, greater care should be taken in designing the type and frequency of chairside preventive dental services to be covered. In general, only preventive services with established cost-effectiveness performance should be considered for inclusion. The range of preventive services covered by a dental plan should be expected to vary between population groups whose dental disease susceptibility may be quite diverse.

7. When dental program cuts are imposed, more serious thought should be given to maintaining eligibility levels and eliminating the less effective preventive dental services as a way of meeting restraint objectives.

8. Dental programs should review their policies and periodically monitor performance with respect to the coverage of X-ray procedures.

9. Consumer groups should be encouraged to attain a greater degree of understanding about group dental program features, particularly what to buy and what not to buy. Health departments, the Canadian Dental Association, and insurance industry associations may have a role to play in this connection.

10. Because dental programs for social assistance recipients represent a major focus of effort and because the funding of these programs is shared by the federal government, the range of dental services should be based on a set of principles that would guide provinces in defining acceptable standards of care. In any event, social assistance dental programs should not give highest priority to extractions and dentures at the expense of more appropriate forms of treatments.

Utilization of Dental Care Programs

11. Because of the number of dental programs operating in Canada and because utilization is frequently seen as a program performance measure, studies should be undertaken to determine what factors should be included in defining utilization and what appropriate utilization targets might be considered for various dental programs.

12. Studies should be undertaken to determine and implement the most appropriate means for increasing dental care utilization among Canada's Indians, Inuit and social assistance recipients.

13. Research should be focussed on the problem of hard-core non-users among populations eligible for dental programs. Factors associated with prolonged non-use should be identified and strategies should be elaborated to help in resolving the situation.

Expenditures for Dental Care Programs

14. Dental program administrators should attempt to set clear and realistic program expenditure goals in order that program performance can be assessed and, where justified by good performance, program vitality can be maintained.

15. Wherever possible, dental program expenditures should be related to benchmarks such as other health care program expenditures, consumer price indices, gross domestic product, etc.

16. In general, but particularly in the case of dental programs with low utilization rates, dental program administrators should seek to match expenditure budgets to program performance targets rather than to passively accept suboptimal performance.

17. Appropriate technical studies should be undertaken to determine the effect of deductibles, copayment, user fees and benefit limitations on dental program performance, particularly in terms of oral health status.

18. Appropriate technical studies should be undertaken to determine: (a) the degree to which prepaid dental programs lead to the substitution of more expensive dental treatment for acceptable, less expensive treatment; (b) the extent to which prepaid dental programs lead to net increases in dental care for program enrollees.

19. Appropriate technical studies should be carried out to assess the effectiveness of various claims review procedures in controlling program expenditures and preventing claim abuses.

20. Policy analysts and decision makers should incorporate the concept of long-term commitment as one of the criteria on which the advisability of public intervention into third-party dental care programs is assessed. This principle is implicitly acknowledged with respect to existing medical care and education programs, but appears to be lacking in the case of dental care.

Data Availability

21. Administrators and systems personnel responsible for provincial dental programs should employ the periodic opportunities available for consulting with each other to refine their own data gathering and reporting systems.

22. Those responsible for federal government-operated dental programs should be encouraged to consult each other with a view to developing data gathering systems that meet at least a limited set of minimal information criteria. None of the federal programs are highly computerized and the time for cooperative planning is now, prior to becoming locked into a specific system.

23. Provinces which operate a fee-for-service system to reimburse dentists for treatment on behalf of social assistance recipients should consider using the claims processing mechanism in existence for the medical care program, public dental care programs, or any other arrangement which guarantees the generation of high quality, annual statistical reports.

24. The Canadian Life and Health Insurance Association should structure a task force to investigate ways and means of generating more detailed industry-wide dental care program performance statistics. Given that private group dental plans represent over $550 million in business, the generation of more detailed data bases, which should be a basic spin-off from computerized claims processing systems, should receive priority attention.

8.8 Closing Comments

This study has attempted to document and analyze dental care programs in Canada. On the basis of the analysis, a series of recommendations have been proposed which are aimed at two main goals. The first is to encourage the continued growth of dental care programs, since they are perceived to result in a higher oral health status. The second is to encourage the development of better information systems in order that dental program management can be conducted on a more rational, efficient and goal-oriented basis.

The report is purposely long since this is the only way in which a full description of the various dental program activities in Canada could even be attempted. Therefore, we see length and level of detail as a strong feature of this project. Readers should remind themselves, however, that only half the dental care market in Canada functions with the intermediary of dental programs, while the other half is based on financial transactions that are direct and involve only the patient and the dentist. The present report has ignored this second part of the market.

Readers might have wished for more data summaries that compared dental programs in the various provinces. This is a deliberate omission, since a tacit condition of gaining the cooperation of provincial dental personnel for the study was the assurance that the report would not focus on the comparative performance of provincial dental programs. In fact, most provincial dental programs have functioned well and would not be harmed by appropriately drawn comparisons. Concerns about the performance of provincial dental plans are generally related not to comparative performance but to internal program objectives and operations. We have identified some of these where appropriate.

There is an obvious need for more analysis that is based on longitudinal dental data. Information bases which respond to this need are difficult to obtain in Canada. In the case of the private group dental plans such data hardly exist, yet they represent the largest single component of dental program activity. Provincial governments that operate dental programs generally have acceptable data bases but there exists a reluctance to open them up to researchers. The federal government dental programs have placed a very low priority on developing computerized data bases with the result that the available information is limited and very approximate, and not at all amenable to longitudinal analyses.

In closing, it is worth re-emphasizing the points made in Section 1.1 of this Report. First, the well-established Canadian dental care programs probably exhibit a greater range of distinct characteristics than occurs in most other developed countries. This gives Canadians a rich opportunity to experiment with and evaluate different approaches to dental care delivery without the confounding effect associated with transnational studies. The findings published in this Report are a beginning to capitalizing on this opportunity. Second, our results document the tremendous growth in Canadian dental programs during the 1970s. The findings suggest that as of January 1, 1982, denta programs had enrolled 54 per cent of the Canadian public and were accounting for a similar percentage of the tota dental expenditures in Canada. Finally, while dental programs have had a positive effect on dental care utilization our results indicate that a lack of clarity about program objectives and the pressures of economic restraint have led to some counter-productive decision making, which in turn is reducing the eligibility for dental programs. If this trend continues it would be a serious blow to the Canadian dental care system. We hope this study will help to reestablish some positive directions for dental care programs in the future.

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APPENDIX I

National Study of Dental Insurance
– Survey Instruments

NATIONAL STUDY OF DENTAL INSURANCE CONTRACTS

J.W. Stamm, DDS, DDPH, MScD
M. Waller, BA, MA
Project Coordinators
Telephone: 514-392-3017

Name of Company ______________________________

Address ______________________________

____

____

Contact person: ______________________________

Title: ______________________________

Telephone ______________________ Date: ______________________

____

We are asking you to complete the following questionnaire and separate appendix for a study, funded by Health and Welfare Canada, of dental benefit programs in Canada. The questions cover the period January 1 through December 31, 1981. Please complete each item in the space provided; or, where necessary append additional pages. Where precise numbers are not available, informed estimated are preferable to no reply; however, please indicate where estimates are used. If questions arise concerning any of the items, please call one of the project coordinators at (514)392-3017.

When complete, return the forms in the stamped, pre-addressed envelope to M. Waller, Faculty of Dentistry, McGill University, 3640 University Street, Room M/34, Montreal, Quebec H3A 2B2.

1. How many persons were covered by dental benefits contracts through your company December 31, 1981. (Please include those covered under "administrative services only" and minimum premium or "stop loss" agreements).

Employees ______________

Dependents ______________

Total persons covered ______________

2. Please provide a breakdown by age and sex of employees covered under contracts in force as of December 31, 1981. If other age breakdowns are available, please attach a seperate sheet. If no age breakdowns are available, please complete the totals column.

	Employees		
	Male	Female	Total
19 and under			
20-29			
30-39			
40-49			
50-59			
60-69			
70 +			
All ages			

3. Please provide the number of covered employees in the following categories:

Number of Employees

Salaried ____________________

Hourly ____________________

Retired ____________________

4. How many contracts covered groups of employees (excluding dependents) of the following sizes:

Group size	**Number of contracts**
Less than 5	
5 – 24	
25 – 49	
50 – 99	
100 – 249	
250 – 499	
500 – 999	
1,000 – 4,999	
5,000 +	

5. Dental services provided under most contracts can be classified into nine broad treatment categories. How many contracts in force December 31, 1981, paid all (or part) of the cost of services in the following categories:

Treatment	**C.D.A. procedure code series**	**Number of contracts**
Diagnostic	01000 – 09999	
Preventive	10000 – 19999	

Restorative	20000 – 29999	______
Endodontics	30000 – 39999	______
Periodontics	40000 – 49999	______
Prosthetics: Removable	50000 – 59999	______
Fixed	60000 – 69999	______
Oral Surgery	70000 – 79999	______
Orthodontics	80000 – 89999	______

6. How many contracts continued either full or partial coverage for retired employees or for widows and dependents of deceased employees?

Extent of Coverage	**Number of contracts**
Full	______
Partial	______

7. How many contracts had no cost-sharing provision (neither copayment, deductible, nor maximum benefit limitations)?

______

8. In how many contracts were routine examination and preventive services exempt from application of the deductible?

______

9.a. Did your company offer any plans which reduced premiums or increased benefits for good dental behaviour, i.e., regular preventive and maintenance visits, analogous to the life insurance premium reduction given non-smokers?

No	______
Yes	______

9.b. If you did offer such plans in 1981, please indicate how many contracts included each of the following incentives:

Type of Incentive	**Number of contracts**
Premium reduction – Group	______
Premium reduction – Individual employee	______
Incentive or progressive coinsurance, e.g., ascending coinsurance (from 60 to 80) provided a user has regular checkups in preceding year	______
Ascending maximum limits, e.g., maximum limits raised each year (from $200, to $300, to $500) provided at least one family member reported a dental visit in the preceding year	______
Other (please specify) ______________________________ ______ ______________________________	______

10. How many contracts recommended pre-determination of benefits for services costing more than:

Predetermination level	**Number of contracts**
$100	__________
$125	__________
$300	__________
$500	__________
Pre-determination not required	__________
Other, please specify	__________
____________________	
____________________	

11. How many contracts used the following fee schedules to determine benefits?

Fee schedule	**Number of contracts**
Usual and customary fees of dentist	__________
The 1981 provincial dental association fee schedule	__________
A fixed fee schedule (a schedule of allowances or a provincial association fee schedule for other than 1981)	__________
Other (please describe)	
____	__________
____	__________

12. Which of the following claims review procedures does your company use? Please rank in order of frequency used, assigning one for the most frequently used method. Do not rank those never used.

Review procedure	**Frequency ranking**
A. Pre-determination of benefits	__________
B. Review of post-treatment radiographs	__________
C. Review of claims over a specified amount by a dentist, dental hygienist, or certified dental assistant	__________
D. Confirmation of adherence to treatment plans	__________
E. Provider profile – fee audits or claims pattern	__________
F. Examination of patients	__________

13. What was the total number of claims paid during the year ending December 31, 1981?

____

14. How many of these claims were paid directly to dentists?

____

15. For all contracts together, what was the total benefits expenditure for the year ending December 31, 1981?

$__________.00

16. Please indicate the amount of benefits paid by type of service.

Treatment category code	**C.D.A. procedure paid**	**$ benefits**
Diagnostic: exam & consultation	01110 – 01400	__________ .00
Radiographs	02100 – 02930	__________ .00
Preventive	10000 – 19999	__________ .00
Restorative	20000 – 29999	__________ .00
Endodontic	30000 – 39999	__________ .00
Periodontic	40000 – 49999	__________ .00
Prosthetics, removable	50000 – 59999	__________ .00
Prosthetics, fixed	60000 – 69999	__________ .00
Oral Surgery	70000 – 79999	__________ .00
Orthodontic	80000 – 89999	__________ .00
Other		__________ .00

17. How many persons claimed benefits (one or more services) in the year ending December 31, 1981?

Employees __________
Dependents __________
Total __________

18. For all contracts together, what was the total premium income for the year ending December 31, 1981.

$ __________.00

19. What would you estimate to be the administrative expense for all contracts, in terms of percentage of total premium income?

__________ %

20. As at December 31, 1981, did your company have in force any contracts to provide "administrative services only" (no element of insurance) for certain dental benefit plans?

No ______ If no, go to question 21.
Yes ______ If yes, how many contracts? __________

How many persons were covered under contracts of this type?

Employees __________
Dependents __________
Total __________

21. As at December 31, 1981, did your company have in force any contracts for which there was a "third-party administrator" for claims?

No ______ If no, go to question 22.
Yes ______ If yes, how many contracts? ________

How many persons were covered under contracts of this type?

Employees ________
Dependents ________
Total ________

22. As at December 31, 1981, did your company have in force any minimum premium or "stop loss" contracts?

No ______
Yes ______ If yes, how many contracts? ________

How many persons were covered under contracts of this type?

Employees ________
Dependents ________
Total ________

Please return to:

M. Waller
Faculty of Dentistry
McGill University
3640 University Street
Room M/34
Montreal, Quebec H3A 2B2

Confidentiality of information reported in this questionnaire and anonymity of the individual respondents will be protected. Data will be used for statistical purposes and only summary will be published.

NATIONAL STUDY OF DENTAL INSURANCE CONTRACTS

J.W. Stamm, DDS, DDPH, MScD
M. Waller, BA, MA
Project Coordinators
Telephone: (514)392-3017

Inventory of Cost-Sharing and Cost-Limitation Provisions

The purpose of this section is to determine the frequency with which various cost-sharing and cost-limitation provisions are related to nine specific dental service categories. Please indicate how many of the contracts in force December 31, 1981, specify deductible, co-insurance factors, and annual family maximums which affect benefits for dental services from each of the categories identified in the following pages. (You may find that some of these dental service categories are covered by common cost-sharing and cost-limitation provisions, e.g. oral surgery and basic restorative or preventive and diagnostic. In such cases, your responses for the two service categories which share these features would be the same.)

Name of Company: ____________________

Address: ____________________

Contact person: ____________________

Title: ____________________

Telephone: ____________________ Date: ____________________

1. Diagnostic Services (C.D.A. Procedure Code Series 01000-09999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil	________	________
$25	________	________
$50	________	________
$100	________	________
Other (please specify) $	________	________
$	________	________

B)

Co-insurance factor	**Number of plans**
100%	________
90%	________

85%

80%

75%

70%

60%

50%

Other (please specify)
%

%

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000 +		
Other (please specify) $		
$		

2. Preventive Services (C.D.A. Procedure Code Series 10000-19999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify) $		
$		

* All maximums refer to limits per family.

B) Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify)	
%	
%	

C) Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000 +		
Other (please specify)		
$		
$		

* All maximums refer to limits per family.

3. Restorative Services (C.D.A. Procedure Code Series 20000-29999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify)		
$		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify)	
%	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000 +		
Other (please specify)		
$		
$		

* All maximums refer to limits per family.

4. Endodontic Services (C.D.A. Procedure Code Series 30000-39999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify)		
$		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify)	
%	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000+		
Other (please specify)		
$		
$		

* All maximums refer to limits per family.

5. Periodontal Services (C.D.A. Procedure Code Series 40000-49999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify)		
$		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify)	
%	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000 +		
Other (please specify)		
$		
$		

* All maximums refer to limits per family.

6. Prosthetics, removable (C.D.A. Procedure Code Series 50000-59999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify)		
$		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify)	
%	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000+		
Other (please specify)		
$		
$		

* All maximums refer to limits per family.

7. Prosthetics, fixed** (C.D.A. Procedure Code Series 60000-69999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify) $		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify) %	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000+		
Other (please specify) $		
$		

* All maximums refer to limits per family.

** Implies only the replacement of one or more missing teeth.

8. Oral Surgery Services (C.D.A. Procedure Code Series 70000-79999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify) $		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify) %	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000 +		
Other (please specify) $		
$		

* All maximums refer to limits per family.

9. Orthodontic Services (C.D.A. Procedure Code Series 80000-89999)

A)

Deductible	**Number of plans with individual deductible of**	**Number of plans with family deductible of**
Nil		
$25		
$50		
$100		
Other (please specify)		
$		
$		

B)

Co-insurance factor	**Number of plans**
100%	
90%	
85%	
80%	
75%	
70%	
60%	
50%	
Other (please specify)	
%	
%	

C)

Maximum Limit	**Number of plans with annual* maximum of**	**Number of plans with lifetime maximum of**
Nil		
$500 or less		
$750		
$1,000		
$1,500		
$2,000+		
Other (please specify)		
$		
$		

* All maximums refer to limits per family.

Please return to:

M. Waller
Faculty of Dentistry
McGill University
3640 University Street
Room M/34
Montreal, Quebec H3A 2B2

APPENDIX II

Data Collection Guide
- Public Sector Programs

Data Collection Guide
PROVINCIAL DENTAL PROGRAMS

Province: ______________________

Program title: ______________________

Date instituted: ______________________

Respondent's name: ______________________

Title: ______________________

Telephone: ______________________ Date: ______________________

Instructions to interviewer: Ask for the titles of all dental services programs offered in the province. For each program, (e.g. child dental health, cleft lip and palate, etc.) collect all data specified in the guide. The questions apply to the most recent complete operating or fiscal year. Anwers to most of the questions can be obtained from public documents. Therefore, you should obtain from the following documents for each program:

Practitioner's manual or fee guide
Annual report
Public information brochures

1. (a) What are the criteria of eligibility for this plan?

____

____

____

(b) Have there been changes in eligibility criteria during 1981? (Include dates of changes.)

No ________

Yes ________ If yes, please describe.

____

____

____

2. (a) What dental procedures are included under this plan? Indicate maximum frequencies where these are specified. (Note: This information may be most easily obtained from the manual or fee guide produced for participating practitioners.)

(b) Were there changes to the schedule of procedures during 1981? (Include dates of changes.)

No ________

Yes ________ If yes, please describe.

3. In instructions to practitioners and beneficiaries, what services are explicitly excluded from the plan?

4. Where are services provided?

Settings	Proportion of services
Private offices	
Community health centres	
School-based clinics (fixed or portable)	
Mobile clinics	
Hospitals	
Other (specify)	

5. How many and what kinds of treatment providers were available through the plan in 1981?

Provider	Number participating
Dentist	
Expanded-Duty Dental Hygienist	
Dental Hygienist	
Therapist Nurse	
Dental Assistant	
Dental Mechanic	

6. By provider, what percentage are reimbursed by salary or fee-for-service?

Provider	Per cent paid by Salary	Fee-for-Service
Dentist		
Expanded-Duty Dental Hygienist		
Dental Hygienist		
Therapist Nurse		
Dental Assistant		
Dental Mechanic		

7. Number of persons eligible for dental services in 1981 by age*, sex, and geographic region. (Note: This information may be most conveniently obtained from the dental section of the program's annual report.

8. Number of persons using dental services in 1981 by age*, sex, and geographic region. (See annual report.)

9. Number of dental services per user cross-tabulated by type of service and by demographic characteristics of users.

Service categories:
Diagnostic
  Examination & Consultation ____________
  Radiographs ____________
Preventive ____________
Restorative, primary teeth ____________
Restorative, permanent teeth ____________
Endodontic ____________
Prosthodontics, removable ____________
Prosthodontics, fixed ____________
Oral surgery, primary teeth ____________
Oral surgery, permanent teeth ____________
Orthodontic ____________
Other ____________

Demographic categories:
Age* ____________
Sex ____________
Geographic region (e.g. urban/rural) ____________

---

* Specify age by year if at all possible. Even if age is aggregated for annual reports, ask about internal studies where age may be disaggregated or, ultimately, access to raw data.

10. Number of persons who received "complete care" (according to the program's standards) by age*, sex, and geographic region, in 1981.

11. Total expenditures for dental services for 1981. (See annual report.)

12. Breakdown of 1981 expenditures per user by type of service and user characteristics. (See annual report.)

Service categories:	Diagnostic	
	Examination & Consultation	____________
	Radiographs	____________
	Preventive	____________
	Restorative, primary teeth	____________
	Restorative, permanent teeth	____________
	Endodontic	____________
	Prosthodontics, removable	____________
	Prosthodontics, fixed	____________
	Oral surgery, primary teeth	____________
	Oral surgery, permanent teeth	____________
	Orthodontic	____________
	Other	____________
Demographic categories:	Age*	____________
	Sex	____________
	Geographic region (e.g. urban/rural)	____________

13. Administrative costs for 1981. (See annual report.)

* Specify age by year if at all possible. Even if age is aggregated for annual reports, ask about internal studies where age may be disaggregated or, ultimately, access to raw data.

14. Total annual cost of the program for 1981, including expenditures for dental services, administrative costs, capital costs, research, etc. (See annual report.)

____

____

____

15. Describe in detail the sources of revenue for the program.

____

____

____

16. Describe in detail any user charges.

____

____

____

17. Describe any changes in the program desired or anticipated by the respondent, e.g.

   a. Eligibility criteria ________________________
   b. Procedures covered ________________________
   c. Method of service delivery ________________________
   d. Sources of revenue ________________________
   e. User charges ________________________
   f. Other ________________________

18. Ask for: Internal documents which discuss the planning, rationale, and structure of the program.

Internal studies of utilization and cost.

APPENDIX III

Sheet Metal Workers Dental Plan
– 1966

Reprinted though the countesty of CU&C Health Services Society Vancouver, British Columbia

This dental care plan is being provided through an arrangement made by the Trustees of the Sheet Metal Workers' Welfare Plan with CU&C Health Services Society. CU&C has entered into an agreement with the Dental Services Association of B.C. to co-operate in providing benefits for dental service plans.

For information about eligibility, contact your Welfare Plan office. For information about the benefits of the plan, discuss it with your dentist or your Welfare Plan Office, #210-307 West Broadway, Vancouver 10, B.C., telephone 876-9626 or CU&C at Room 21, 96 East Broadway, Vancouver 10, B.C., telephone 879-5711.

WHO IS ELIGIBLE FOR BENEFITS?

(1) Any person who is covered by the other benefits provided by the Standard Welfare Plan at July 1, 1966, will be covered under the Dental Plan.
(2) Future employees, working in a shop covered by any Local Union 280 or 280A Agreement that contains the Standard Welfare Plan Clause, and who are eligible and covered for the other benefits provided by the Welfare Plan.

A Union member must work 300 hours in six-month consecutive period to qualify.

Once qualified he may maintain coverage by working 150 hours each month thereafter. If he does not work sufficient hours, he may make cash contributions to the Administrator to make up any deficiency.

Participating employers and their other employees may become associate members by paying for two months' coverage to qualify and maintaining payments each month thereafter.

WHO MAY BE CLAIMED AS DEPENDENTS?

You may claim the same dependents as you have claimed for the medical and surgical coverage.

WHEN DOES COVERAGE TERMINATE?

Coverage terminates on the last day of the month on which your other benefits terminate. Termination of all benefits takes place if:

(1) You fail to work sufficient hours each month to remain qualified for benefits or make a cash contribution in lieu thereof.
(2) Your membership in the Union is terminated either by you or your Union.
(3) The Plan is cancelled.

NOTE: For further information on termination of benefits, please read your Sheet Metal Workers Welfare Plan Pamphlet.

HOW TO USE YOUR PLAN

Visit a dentist of your choice. During your first appointment, advise him that you are a member of the Sheet Metal Workers' Dental Plan.

He will perform an examination and submit a program of proposed treatment to C.U.&C Health Services Society for computation and to check your eligibility.

It is important that you discuss with your dentist, before treatment is begun, the total amount of his fee and the portion you will be required to pay.

BENEFITS

You and your eligible registered dependents will be entitled to have paid for on your behalf fifty per cent (50%) of the agreed fees for the following services:

DIAGNOSTIC:

All the necessary procedures to assist the Dentist in evaluating the existing conditions and the dental care required. These services include:

(a) Examinations and consultations.
(b) Roentgenology and pathological reports (X-ray and Lab) as required by the attending Dentist.
(c) Full mouth x-rays not oftener than once every thirty-six month period.
(d) Other diagnostic aids as deemed necessary by the Dentist.

PREVENTIVE THERAPY:

(a) Prophylaxis (removal of calculus (tartar) and stains from the surface of the teeth by scaling and polishing) limited to twice in any one year.
(b) Topical fluoride applications (applications of a solution of fluoride to the crowns of the teeth as a preventive measure), limited to one application in any consecutive period of twelve months.
(c) Space maintainers: when placed to maintain space and not for orthodontic (straightening of teeth) purposes.

ORAL SURGERY:

(Oral pertaining to mouth) Extractions and other oral surgical procedures, including pre and post-operative care.

RESTORATIVE DENTISTRY:

All the necessary procedures to restore the natural teeth to normal function, including amalgam, silicate, plastic, synthetic porcelain, and gold restorations, subject to the following limitation, ie., gold shall be covered only where no other material is adequate to restore the tooth to contact and contour. Crowns and jackets are covered only where a filling material cannot be used adequately in the circumstances. A tooth surface is covered only once regardless of the number of restorations placed thereon or therein.

ENDODONTICS:

(Treatment of diseases of the pulp chamber and pulp canals) Necessary procedures for treatment of pulpally-involved teeth, including non-vital teeth.

PERIODONTICS:

(Treatment of diseases of the tissues and bones supporting the teeth) Procedures necessary for the treatment of diseases of the soft tissue and the bone surrounding and supporting the teeth.

PROSTHETICS:

(Artificial replacement for lost teeth) Includes bridges, removable partial dentures, and complete dentures, jumps, relines, repairs and adjustments, subject to the following limitations, i.e., gold shall be covered only where no other material is adequate in the circumstances. If the service is over and above what would be provided by most dentists normally, the cost of the excess service is not covered. If the Dentist uses the "two denture technique", that is, where he uses a first appliance as a surgical splint and then uses a second denture, a reline on the surgical splint is not covered.

EXCLUSIONS AND LIMITATIONS

Expenses are not covered that are incurred for or caused or contributed to by:

1. (i) War or an act of war or participation in a riot or civil insurrection.
   (ii) Intentionally self-inflicted injuries, diseases or sickness while sane or insane or in the commission of an infraction of the Criminal Code, or the commission of any unlawful act.
   (iii) Orthodontic Services (straightening of teeth).
   (iv) Services purely cosmetic in nature.
   (v) Charges for broken appointments.
   (vi) Conditions for which dental care is provided or hereafter may be provided to an eligible member or his dependents without cost or at nominal cost by public authorities, including, without limiting the generality of the foregoing, service connected disabilities, any treatments supplied by a tax-supported agency and accidents or diseases covered by the Workmen's Compensation Act or any like statue.
   (vii) Treatment and care in those cases where and to the extent that necessary dental care and treatment is provided or paid for by any third party or parties liable at law to make such provision or payment, including treatment required as a result of accident or negligence where a third party is responsible.
   (viii) Expenses for prosthetic services or devices (including crowns and bridges) started prior to the date the patient became covered.
2. Any amount of dental expenses that requires payment by CU&C of more than $400.00 for any one person in any 12 month period.
3. Any amount for a "visit fee" when there is rendered a service for which there is an identifiable fee.
4. Any amount of expenses incurred without the prior submission to CU&C of a Treatment Plan Form, if the cost of such services exceeds $25.00.
5. Any amount in excess of 50 per cent of the fee provided in the Table of Allowances that you might agree to pay your Dentist.

APPENDIX IV

Standard Claim Form For Private Sector Group Dental Plans

DENTAL INSURANCE PLAN

HOW TO CLAIM DENTAL INSURANCE BENEFITS

As soon as you or an insured dependent incur covered dental expenses:

1 Take this form to your dentist and have him complete the DENTIST'S STATEMENT (Part 1) on the reverse side of this form.

2 Complete and sign the INSURED'S STATEMENT (Part 2). Please be sure you fully answer all questions.

3 Send the form to the Dental Insurance Plan Administrator at your place of employment.

The Plan Administrator will complete the POLICYHOLDERS' STATEMENT (Part 3) and send your claim to * . * will mail a benefit cheque directly to your home address. If, however you have assigned benefits to your dentist, the cheque will be mailed directly to your dentist.

IMPORTANT: All claims should be submitted as soon as possible after the date you receive covered dental treatment. In any event claims must be submitted within 90 days following the end of the benefit year in which they were incurred. If you are under a treatment program which will involve a series of treatments for an extended period you should file a claim periodically and indicate on the claim form that it is part of an on-going treatment plan.

HOW TO FILE FOR PRE-DETERMINATION OF BENEFITS.

If the dental treatment recommended by your dentist is expected to exceed the Pre-determination limit specified in your Dental Insurance Plan, details of the treatment plan and estimated costs should be submitted to * for consideration before treatment starts. To submit a treatment plan for Pre-determination;

1 Ask your dentist to complete the DENTIST'S STATEMENT (Part 1) the reverse side of this form itemizing the proposed treatment and the estimated costs.

2 You should then complete and sign the INSURED'S STATEMENT (Part 2) and submit the form to your Dental Insurance Plan Administrator in the same manner as if it was a claim, but indicating that it is for Pre-determination.

* will review the treatment plan and send you a statement outlining the approximate amount of benefits which will be payable if that treatment is carried out. It is in your best interest to await a reply from * before starting treatment.

The purpose of Pre-determination is to let you and your dentist know what treatment is covered and the approximate amount of benefits available before beginning a course of treatment. If Pre-determination of benefits is not requested and a claim is received for expenses in excess of the Pre-determination limit, * reserves the right to determine benefits based on a less expensive procedure than the one actually performed. Any difference in the amount of those benefits and the total charges will be your responsibility.

---

* The carrier

STANDARD DENTAL CLAIM FORM

APPROVED BY THE CANADIAN DENTAL ASSOCIATION

PART 1 DENTIST

DENTIST

NAME

ADDRESS

CITY, PROV.

POSTAL CODE

TELEPHONE

SOCIAL INS. NUMBER

PATIENT'S LAST NAME GIVEN NAMES

ADDRESS APT.

CITY PROV.

POSTAL CODE

DATE OF SERVICE			INT TOOTH CODE	PROCEDURE CODE	TOOTH SURFACES	LABORATORY CHARGE	DENTIST'S FEE	TOTAL CHARGE
DAY	MO	YR.						

THIS IS AN ACCURATE STATEMENT OF SERVICES PERFORMED AND FEES CHARGED. E & OE

TOTAL SUBMITTED ⟶ FEE

DENTIST'S SIGNATURE DATE DAY MONTH YEAR

FOR DENTIST'S USE ONLY. FOR ADDITIONAL INFORMATION RE: DIAGNOSIS, PROCEDURES, OR COMPLICATIONS, AND SPECIAL CONSIDERATIONS.

I UNDERSTAND THAT THE FEES LISTED IN THIS CLAIM MAY NOT BE COVERED BY OR MAY EXCEED MY POLICY BENEFITS. I UNDERSTAND THAT I AM FINANCIALLY RESPONSIBLE TO MY DENTIST FOR THE ENTIRE COST OF THE TREATMENT. I AUTHORIZE RELEASE OF THE INFORMATION CONTAINED IN THIS CLAIM FORM TO MY INSURING COMPANY OR ITS AGENTS.

SIGNATURE OF PATIENT (OR PARENT/GUARDIAN)

I HEREBY ASSIGN BENEFITS PAYABLE FROM THIS CLAIM TO THE ABOVE NAMED DENTIST AND AUTHORIZE PAYMENT DIRECTLY TO HIM

SIGNATURE OF SUBSCRIBER

FOR PLAN ADMINISTRATOR USE ONLY

	%	%	%	

FOR PLAN ADMINISTRATOR USE ONLY

PART 2 INSURED/SUBSCRIBER

COMPLETE THIS PART BEFORE TAKING THE FORM TO YOUR DENTIST'S OFFICE

1. PATIENT: RELATIONSHIP TO INSURED ____________ DATE OF BIRTH ____________
   IF CHILD AGE 21 OR OVER INDICATE STUDENT ☐ HANDICAPPED ☐
2. ARE ANY DENTAL BENEFITS OR SERVICES PROVIDED UNDER ANY OTHER GROUP INSURANCE OR DENTAL PLAN? ☐ NO ☐ YES POLICY NUMBER ____________
   NAME OF INSURING AGENCY ____________
3. IS ANY TREATMENT REQUIRED AS THE RESULT OF AN ACCIDENT? ☐ NO ☐ YES
   GIVE DATE AND DETAILS
4. IS ANY TREATMENT FOR ORTHODONTIC PURPOSES? ☐ NO ☐ YES
5. IF DENTURE, CROWN OR BRIDGE, IS THIS INITIAL PLACEMENT? ☐ NO ☐ YES
   GIVE DATE OF PRIOR PLACEMENT AND REASON FOR REPLACEMENT
6. I AUTHORIZE THE RELEASE OF ANY INFORMATION OR RECORDS REQUESTED IN RESPECT OF THIS CLAIM TO THE INSURER OR ITS AGENTS AND CERTIFY THAT THE INFORMATION GIVEN IS TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.
7. INSURED: NAME (PLEASE PRINT) ____________
   ADDRESS

DATE DAY MONTH YEAR SIGNATURE

PART 3 POLICYHOLDER

1. POLICY NUMBER
   SUFFIX ACC./DIV.
2. NAME OF INSURED
3. S.I.N. ☐☐☐–☐☐☐–☐☐☐
4. CERT. NO.

	DAY	MONTH	YEAR
5. DATE INSURED			
6. DATE DEPENDENT INSURED			
7. DATE TERMINATED			

8. IS CLAIM BEING MADE FOR WORKMEN'S COMPENSATION BENEFITS? ☐ NO ☐ YES
9. POLICY HOLDER

SIGNATURE OF AUTHORIZED OFFICIAL

DATE DAY MONTH YEAR

ALL INFORMATION RECORDED ON THIS FORM IS CONFIDENTIAL.

APPENDIX V

RESPONDENTS, NATIONAL DENTAL INSURANCE SURVEY 1982

ACTRA Fraternal Benefit Society, Toronto, Ontario
Aeterna-vie, Compagnie d'Assurance, Montreal, Quebec
Allstate Life Insurance Company of Canada, Willowdale, Ontario
Alliance, Compagnie Mutuelle d'Assurance-vie, Montreal, Quebec
Assurance-vie Desjardins, Levis, Quebec
Blue Cross of Atlantic Canada, Moncton, New Brunswick
The Canada Life Assurance Company, Toronto, Ontario
Canadian Union Mutual Benefit Association, Toronto, Ontario
Compagnie d'Assurance sur la Vie La Sauvegarde, Montreal, Quebec
Confederation Life Insurance Company, Toronto, Ontario
Constellation Assurance Company, Toronto, Ontario
Les Cooperants, Societe Mutuelle d'Assurance-vie, Montreal, Quebec
CU&C Health Services Society, Vancouver, British Columbia
Crown Life Insurance Company, Toronto Ontario
Dominion Life Assurance Company, Waterloo, Ontario
Eaton-Bay Life Assurance Company, Toronto, Ontario
The Empire Life Insurance Company, Kingston, Ontario
The Equitable Life Insurance Company of Canada, Waterloo, Ontario
The Excelsior Life Insurance Company, Toronto, Ontario
The Great-West Life Assurance Company, Winnipeg, Manitoba
Green Shield Prepaid Services, Inc., Windsor, Ontario
The Imperial Life Assurance Company of Canada, Toronto, Ontario
L'Industrielle Compagnie d'Assurance sur la Vie, Sillery, Quebec
Labourers International Union of North America, Toronto, Ontario
La Laurentienne Mutuelle d'Assurance, Quebec, Quebec
Laurier Life Insurance Company, Etobicoke, Ontario
London Life Insurance Company, London, Ontario
The Maritime Life Assurance Company, Halifax, Nova Scotia
Metropolitan Life Insurance Company, Ottawa, Ontario
The Mutual Life Assurance Company of Canada, Waterloo, Ontario
The National Life Assurance Company of Canada, Toronto, Ontario
North American Life Assurance Company, Toronto, Ontario
The Northern Life Assurance Company of Canada, London, Ontario
Ontario Blue Cross, Don Mills, Ontario
Pacific Prepaid Dental Plans, Vancouver, British Columbia
The Plumbers Local 666, St. Catherines, Ontario
The Prudential Insurance Company of America, Toronto, Ontario
Quebec Blue Cross, Montreal, Quebec
Reliable Life Insurance Company, Hamilton, Ontario
Les Services de Sante du Quebec, Ste-Foy, Quebec
Sun Life Assurance Company of Canada, Toronto, Ontario
La Survivance, Compagnie Mutuelle d'Assurance-vie, Ste-Hyacinthe, Quebec
Transamerica Occidental Life Insurance Company, Toronto, Ontario
Travelers Life Insurance Company of Canada, Toronto, Ontario
Turnbull and Turnbull Consulting Actuaries, Winnipeg, Manitoba
Zurich Life Insurance Company of Canada, Toronto, Ontario

APPENDIX VI

SOURCES, FEDERAL DENTAL CARE PROGRAMS

Canadian Forces	Col. F. Begin, Director, Dental Treatment Services and Dr. H. Protheroe, Director, Dental Treatment Services/3.
Correctional Service of Canada	Ms. A.N. O'Leary-Brochu, Director, Health Care Operations.
Department of Veterans Affairs	Dr. J. Cowan, Dental Director, DVA Dental Clinic and Dr. F.A. Irwin, 1468 Heatherington Road, Unit J, Ottawa, Ontario K1V 6S1.
Department of National Health and Welfare (Medical Services Branch)	Dr. W.R. Bedford, Senior Consultant, Dentistry, Health Services Directorate.
	Dr. D. Ross, A/Senior Consultant, Dentistry, Health Services Directorate.
Department of National Health and Welfare (Health Information Division)	Mr. L.W. Rehmer, Director, Health Information Division, Policy, Planning and Information Branch and Mr. P.-P. Bellerose, Head, Medical Care Unit, Health Information Division, Policy, Planning and Information Branch.
Statistics Canada	Mr. J. Davis, Assistant Director, Program Development and Evaluation, Health Division, Mr. A. Gower, Methodologist, Federal Department/Agency Relations and Ms. I. Tracktenberg, Consultant, Federal Department/Agency Relations.

APPENDIX VII

SOURCES, PROVINCIAL/TERRITORIAL DENTAL CARE PROGRAMS

Alberta	Dr. T.M. Curry, Senior Dental Consultant, Community Health Services, Alberta Social Services and Community Health, Dr. Cheung, Alberta Department of Hospitals and Medical Care, and Ms. J. Clovis, Senior Dental Health Consultant, Professional Services Branch, Alberta Social Services and Community Health, Edmonton.
British Columbia	Dr. A.S. Gray, Director of Dental Health Services, British Columbia Ministry of Health, Victoria and Mr. W.H. Thorpe, Claims Manager, Medical Services Plan of British Columbia, Victoria.
Manitoba	Mr. P. Todman, Director of Administration, Dental Health Services, Manitoba Department of Health, Winnipeg.
New Brunswick	Dr. J. Blackmer, Director of Dental Health Services, New Brunswick Department of Health, Fredericton.
Newfoundland	Dr. J.E. Russell, Director of Dental Services, Newfoundland and Labrador Department of Health, St. John's, and Dr. S.B. Doshi, Dental Director, Division of Community Dentistry, Newfoundland and Labrador Department of Health, St. John's.
Nova Scotia	Dr. F.P. Fennell, Dental Director, Nova Scotia Medical Services Insurance, Halifax.
Ontario	Dr. R.K. Ryan, Senior Consultant, Public Health Dentistry, Ontario Ministry of Health, Toronto.
Prince Edward Island	Dr. R.G. Romcke, Director of Dental Public Health, Prince Edward Island Department of Health and Social Services, Charlottetown.
Quebec	Dr. G. Pelletier, Conseiller cadre, Médecine dentaire, Régie de l'assurance-maladie du Québec, Québec.
Saskatchewan	Dr. M.H. Lewis, Director, Saskatchewan Health Dental Plan, Regina.
Northwest Territories	Dr. M. Welch, Regional Dental Officer, Northwest Territories Region, Medical Services Branch, Department of National Health and Welfare, Yellowknife.
Yukon	Dr. R.J. Huckstep, Regional Dental Officer, Yukon Region, Medical Services Branch, Department of National Health and Welfare, Whitehorse.

APPENDIX VIII

SOURCES, SOCIAL ASSISTANCE PROGRAMS UNDER THE CANADA ASSISTANCE PLAN

Ottawa	Mr. N.N. Papove, Director, Assistance and Vocational Rehabilitation Services, Administration Division, Canada Assistance Plan Directorate, Social Services Programs Branch, Health and Welfare Canada, Ottawa.
Alberta	Dr. J. Taylor, Acting Director, Division of Support Services, Social Services and Community Health, Edmonton.
British Columbia	Ms. R. Chisholm, Policy Analyst, Ministry of Human Resources, Victoria.
Manitoba	Ms. U. Spangen, Supervisor, Social Allowance Health Service, Department of Community Services and Corrections, Winnipeg.
New Brunswick	Mr. G. LeBlanc, Health Services Claims Supervisor, Department of Social Services, Fredericton,
Newfoundland	Mr. G. White, Director of Health Policy, Newfoundland and Labrador Department of Health, St. John's.
Nova Scotia	Ms. E. McNaughton, Senior Research Officer, Policy, Planning and Research, Nova Scotia Department of Social Services, Halifax.
Ontario	Ms. L. Parry, Standards Development Specialist, Program Support Section, Ministry of Community and Social Services, Toronto.
Prince Edward Island	Dr. R.G. Romcke, Director of Dental Public Health, Island Prince Edward Island Department of Health and Social Services, Charlottetown.
Quebec	Dr. G. Pelletier, Service de santé dentaire, Conseiller cadre, Médicine dentaire, Régie de l'assurance-maladie du Québec, Québec
Saskatchewan	Ms. D. Anderson, Director, Federal-Provincial Arrangements Branch, Saskatchewan Social Services, Regina.